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Index to Medical Brief

VOLUME XXXIII, 1905.

A

PAGE.

A Bad Wound With a Good Recovery..... 174
A Dangerous Thing..... 103
A Discussion of the Most Leading Questions which Confront the Human Mind..... 987
A Few Jottings from Arkansas 663
A Good Bracer—Sick Headache 759
A Little True Story, Illustrative of the Reversed Relation of Specialist and General Practitioner 846
A Lost Catheter Regained. 80
A Matter of History 991
A Nut to Crack..... 992
A Plea to the General Practitioner in Behalf of All Those Suffering From Hypertrophy of the Prostate..... 214
A Political Directory.... 354
A Practical Insole..... 362
A Queer Case..... 663
A "Rung Shell" Case.... 56
A Singular Case..... 990
A Twenty-Pound Baby... 758
A Variety of Findings Between Cause and Effect 964
Abdominal Brain, Views on the 475
Abdominal Cases, Report of Two 26
Abortion, Necessary..... 591
Abortion, Pathological Conditions of Mother or Fetus, Warranting the Induction of..... 222
Abscess, Pelvic, Vaginal Puncture and Drainage for 884
Abscess, Peritonsillar.... 622
Abscess, Suburethral..... 623
Abuse 105
Acetanilide 745
Acne, Treatment of..... 512
Acne Vulgaris, Some Remarks Upon the Treatment of..... 553
"Active Air"..... 566
Adenitis, Tubercular, in Children from Three to Ten Years of Age..... 461
Adenoid Vegetations..... 305
Adenoid Vegetations, Post-Nasal, in the Negro... 681

PAGE.

Adenoma, An Interesting Case of..... 896
Adrenalin 157
After-Coming Head, Management of the..... 782
Alcohol 387
Alcohol in Medicine.... 985
Alcohol, Wood, Pernicious Uses of..... 410
Alcoholism, Acute..... 157
Alum 52
Amaurosis, Tobacco, Diagnosis of 53
An Improved Syringe and Urethral Irrigating Nozzle 666
An Interesting Case.... 991
Analysis, Urinary, A Preliminary Study to..... 797
Anatomical Material, Some Observations Upon the Preservation of. 400
Anesthesia, Dental..... 368
Anesthetics, Who Is Competent to Administer?.. 893
Answers to Contributors. 759
Appendicitis, Catarrhal... 557
Appendicitis (So-called) and Its Treatment.... 64
Appendicitis, Some of the Difficulties in the Diagnosis of Recurrent Attacks of, With Case Report 861
Appendicitis, Static Electricity in..... 652
Apocynum Cannabinum.. 163
Application, Local..... 338
Are Proprietary Medicines Ethical? 150
Arsenization 806
Arthritis, Rheumatoid, On the Group Classed as.. 597
Asclepias 763, 926
Asthma 91, 736, 918, 972
At What Age is a Man at His Best?..... 359
Aural Polypi, The Treatment of..... 124

B

Babe, New-born, Washing the 52
Backache, A Simple Cure for 188
Bandaging, Practical, of the Scrotum and Perineum 802
Bath, The Continuous.... 636

PAGE.

Be Practical and Self-Reliant 279
Beechwood Creosote 56
Begins to Kick..... 434
Bellevue's Diet Kitchen.. 358
Beware of the Fanatic... 845
Bladder, Irritable, in the Female 656
Blood Examination, Diagnosis of Disease by—A Clinic 61
Book Notices...93, 269, 1003
Breasts, How to Develop the 937
Brief Talks.....51, 155
Bright's Disease, Acute, Digitalis in..... 999
Brodnax, Dr. Ben H., In Memoriam of.....1002
Bronchitis 54, 55
Bronchitis, Chronic, in the Aged, Treatment of.... 764
Burns 92, 171, 288
Buttermilk as an Infant Food 869

C

Calcium Fluoride 53
Calcium Sulphide 823
Calculus, Vesical, The Value of a Negative vs. a Positive Diagnosis in. 895
Calomel, The Use and Abuse of 952
Can Not Understand Him. 201
Cancer of the Breast, Case of, Treated Successfully by Medicine..... 248
Cancer, The Treatment of. 706
Carbolic Acid a Scientific Magic 505
Carbolic Acid a Scientific Magic (Supplement)... 756
Carcinoma of the Rectum 469
Cardiac Remedies, Thoughts Regarding Some of Our..... 699
Carry Sunshine With You 4
Catarrh, Can It Be Cured? 43
Catarrh in the Head.... 89
Causes 249
Cerebro-Spinal Meningitis, 433, 438, 474, 578, 647, 676, 981
Chemical Synthesis as Applied to New Remedies 630

PAGE

Chemistry and Psychology —Chemistry of the Body as Affected by Adverse or Favorable Emotions —Psychology, Chemistry and Magnetism of Love, etc..... 558
Chicken-Pox 348
Chills and Fevers..... 999
Chloasma (Liver Spot Disease) 873
Chloriasis, Asthma, Emphysema of the Lungs, The Therapeutic Effect of Carbonic Acid Gas in 202, 283
Cholagogues, The Therapy of 261
Cholera Infantum, Acute. 758
Cholera Morbus 793
Chorea 51, 191
Choreiform Movements... 190
Cigarette Evil, The..... 722
Cigarette Smoking..... 199
"Cimicifuga" 805
Circumcision, A Few Points on 864
Circumcision, A Few Points on—Technique of Operation..... 943
Circumcision, A Simple Method by Which Operation of, is Reduced to a Minimum 750
Cirrhosis of the Liver, Unusual Case of..... 87
Climate, Change of..... 53
Clinical Notes, Some.... 148
Cod Liver Oil Preparations 189
Cold, Common Head, The Treatment of a..... 573
Cold, Neglected..... 189
Collections 56
Coma and Delirium in Continued Fevers..... 565
Conceit of Man..... 98
Constipation, Chronic, Its.. Treatment 265
Consumption, For the Prevention of..... 341
Consumption, Pure Air For 432
Convulsions 845
Cooks and Doctors..... 353
Cough Following Colds, 432, 475

D

Dandruff 91
Dangers 924
Death, A Physiological View of 725
Dental Diseases and the Medical Practitioner... 533
Depilatories 999
Der Country Doctor..... 88

PAGE.

Diabetes and Its Surgical Treatment 542
Diabetes Mellitus 773
Diabetes, Oxygen in the Treatment of 67
Diagnosis, A Question of. 624
Diagnosis, Blood, Predetermination, Revelation and Treatment of Disease by 326, 361
Diagnosis, Deficient..... 224
Diagnosis, on the More Frequent Use of the Aspirating Needle as a Means of..... 786
Diagnosis, Physical, Minor Details of 790
Diarrhea, Chronic ...../ 89
Diarrheas of Infancy, The Newer Studies in the.. 459
Diarrhea With Night Sweats 91
Diet 266
Diet and Destiny..... 58
"Dietetics" 651
Diphtheria 748
Diphtheria, Laryngitis and Tonsilitis, Common-Sense Antitoxin for... 496
Diphtheria, Treatment of. 263
Diseases of Children, Importance of a Thorough Examination of the Throat in 986
Dislocation, Congenital, of the Hip, Treatment of, by the Lorenz Method of Manipulation..... 774
Do Not Halt..... 7
Dressings, Plaster Paris, Removal of 155, 375
Drink Habit, Cure of the, by Hypno-Suggestion.. 705
Drink Habit, The..... 408
Dropsy, Specific Treatment of, or Anasarcin in 75
Drowning, Cause of Death in 842
Drug Addict, The..... 757
Dysentery of Childhood, Castor Oil in..... 746

E

Echifolta Cream..... 170
Echinacea Angustifolia... 587
Eclampsia, Puerperal.... 157
Eczema, A Plan for the Treatment of, in the Hands of a General Practitioner 891
Eczema, The Treatment of 39
Editorial..1, 97, 193, 273, 353, 433, 513, 593, 683, 763, 843, 923
Editorial Notice..... 513
Education .....65, 65.

PAGE.

Egg, The Yolk of and the White of, Cures..... 276
Electricity in Medicine... 781
Electro-Static Machine, The 76
Electro-Therapeutics, The Principles of..... 120
Elimination 262
Embalming the Dead, the Principles and Practice of 363, 446, 527
Empyema of Gall-Bladder, Two Cases of, With Some General Remarks on Gall-Stones.. 28
Enteralgia and Colic..... 720
Enuresis 590
Epilepsy 487
Epilepsy and Its Mental Relation—Epileptic Automatism, or Psychical Phases of Epilepsy... 462
Epistaxis, Its Causation and Treatment..... 208
Epithelioma of the Skin.. 788
Ergot, The Non-Obstetric Uses of..... 885
Erysipelas 52, 53
Ethics, A Curious Idea of. 198
Examination Illinois State Board of Health, January 19-21, 1905..... 424
Examination Questions of the Indiana State Board of Medical Registration and Examination...591, 680
Examination Questions of the University of the State of New York, 760, 840, 1000
Examinations, Medico-Legal 304
Examinations of State Board of Medical Examiners—New York..... 342
"Excretory Irritation," or the Correlation of Symptomatic Skin Rashes With Other Organic Inflammation. 17
Expert Medical Witnesses. 753
Eye Strain, Measurement of 555
Eye Treatment, A Plea for Milder 57
Eyes in Health and Disease, The Care of the.. 929
Eyesight, Abnormal—Responsibility for its Correction 670

F

Faddists 250
Feeding Children..... 435
Feeding, Infant, A Few Important Details Necessary for 963

PAGE

Fever 57
Fever, Aestivo-Autumnal Malarial, Some Remarks on 711
Fever, Childbed, Some Notes on 429
Fever, Enteric, Jugulated. 667
Fever, Enteric or Typhoid. 755
Fever, Malarial, The Cause of 397, 485
Fever, Scarlet, Etiology, Lesions and Symptoms of 941
Fever, Scarlet—Its Etiology and Channels of Infection 521
Fever, Speculative..... 857
Fever, Typhoid..53, 156, 351
Fever, Typhoid, A Case of. 837
Fever, Typhoid, Laboratory Diagnosis of.... 632
Fever, Typhoid, On Diet in 396
Fever, Typhoid, or What? 185
Fever, Typhoid, The Treatment of.....183, 188, 760
Fever, Typhoid, Various Types of..... 508
Fever, Yellow 765
Fever, Yellow, Epidemic 1905, Lessons Learned from 897
Fever, Yellow, Treatment of 795
Fibro-Sarcoma, An Interesting Case of, Involving the Tendon of Gastrocnemius Muscle 773
Fibroids of the Uterus in Pregnancy and Labor.. 595
Fibroids, Remarks on Treatment of 700
Financial Success 8
Finger Prints..... 847
Fistula, Rectal, Promptly, Completely and Permanently Cured Without Operation..... 133
Food In Health and Sickness 924
For Example..... 99
Forewarned 265
Forceps Application, A New Resource in..... 427
Fracture Box for Infant. 78
Fracture, Colles, Some Remarks on 960
Fractures of the Leg, A Few Suggestions in the Treatment of 712

G

Gall Bladder Disease, Early Surgical Interference in..... 513
Gall-Stone Disease, Concerning the Surgical Treatment of..... 894

PAGE

Gall Stones....196, 635, 758
Gall-Stones, Signs and Symptoms of..... 704
Gastralgia 57
Gastritis, Chronic Hypersthenic 585
Genito-Urinary Surgery, Briefs on—Vasectomy for True Spermatorrhea and Prostatorrhea..... 143
Germs, Rivals of..... 820
Germs, The Origin of... 168
Gonorrhea, Chronic 56
Gonorrhea of Women, The Technic of Diagnosis in 161
Governmental and Municipal Ownership 684
Graft 842
Gun-Shot Wounds, Some Observations on, with Brief Reports of Three Cases of Wounds of the Abdominal or Pelvic Viscera 471
Gynecological Examinations, The Value of... 962
Gynecological Hints..... 452

H

Halitosis, Bad Breath.... 254
Harelip, A Satisfactory Operation for 713
Health, The Secret of, and Its Possession.732, 830, 915
Heart Disease, Physical Treatment of..... 675
Heart, Fatty Degeneration of the..... 801
Heart, Irritable..... 191
Heart Lesions From a Purely Clinical Standpoint 317
Hemorrhage 157
Hemorrhage, Idiopathic, of the Lingual Tonsil.. 151
Hemorrhoids 512
Hemorrhoids, External, The Pathology and a Satisfactory Method of Treating 961
Hemorrhoids, Internal... 312
Hernia, Femoral, The Diagnosis and Treatment of 955
Hernia, Inguinal..... 125
Hernia, Inguinal, and Certain Forms of Hydrocele, The Relation of the Unobliterated Funicular or Vaginal Process to the Production of 690
Hernia, Inguinal, Implantation of Omentum in as a Radical Cure..... 519
Hip Joint Disease..... 945
Education 65, 654

PAGE

Hitch Your Wagon to a Microbe 496
Hook Worms—Pertussis. 90
How About Your Diploma? 429
How Do You Like It?.... 198
How Long?..... 277
How to Have Universal Peace 280
How to Keep Bright, Clean Instruments..... 656
How to Live a Hundred Years 619
How to Reduce Temperature Safely Without Antipyretics 55
How to Succeed as a Doctor 7
Hydrophobia Versus Madstone 669
Hygiene, Infantile 45
Hygiene, Oral..... 954

I

Idiosyncrasy 103
If My Boy Becomes a Doctor 825
In Old Roseau—An Idyl of the Caribbean, 241, 337, 414
Incontinence of Urine, The Essential 871
Independence and Liberty 274
Indigestion 102
Indigestion and Biliousness 52
Indigestion, Nervous ... 51
Individualism 2
Infant Mortality, Our Frightful, Caused by Poverty, Disease and Ignorance 420
Infants, Artificial Feeding of 186
Influenza, "Complications" of 569
Inquiry Department..89, 189
Insanity in Private Practice, On the Management of, With Some Hints as to Prognosis. 11
Insanity, Incipient...439, 687
Inspection of Beef by Microscope 978
Intellectual Progress..... 236
Intestinal Tract, The Ferments of the..... 466
Intussusception, Remarks on the Causes of Mortality in, and on the Advantages of Prompt Operative Interference in the Treatment of This Condition 715
Iodides, The Therapeutics of the..... 603

PAGE.
Investigate 279
Iritis, Diagnosis and Treatment of..... 547
Irritation, Spinal — Its Cause and Cure..... 814
It is Not Treason Now.. 594
It Is Too Bad..... 436
It was Intuition..... 989

J

Jaborandi 185
Joiners 275
Joints, Swollen Rheumatic 960
Journalistic Enterprise.. 8

K

Kidneys, Floating..... 192

L

La Grippe..... 267
Labor, A Peculiar Case of 352
Labor, Cystic Tumor Complicating 268
Labor, Painless..... 428
Laws, Medical....3, 154, 504
Laryngitis, Spasmodic.... 795
Lemons, Medicinal Potency of..... 418
Lengthening the Body... 92
Let Me Whisper in Your Ear 355
Liberality, A Plea for.... 922
Life and Its Strugggles.. 157
Life, Health, Disease and Death, Potential Energy, Irritability and Stimulation, the Indefatigable Factors of..... 660
Light, A Study on, A Few Timely Scientific Facts Related for the Comprehensive Understanding of the Practitioner, 49, 152
Liquid Air and Its Therapeutical Possibilities... 128
Liquor Ferri Persulphatis 415
Little Things in Treatment of Little Folks.. 925
Lock-Jaw, How Indians Cure—A Fact Intertwined With Romance and Therapeutics 72
Locomotor Ataxia..... 345
"Love, The Psychology, Chemistry and Magnetism of" 993
Lubrication in X-Ray Exposures 874
Lung Development—The Lungs Both Give and Take 300

M

PAGE.
Machine Medicine..... 278
Macrotys—Black Cohosh. 511
Malaria 465, 649
Malaria and the Mosquito 992
Malaria, The Prevalence of 385
Marriage 79
Marriage and Divorce.217, 308
Mastication 683
Measles 383
Medical Fisherman, The. 427
Medical Liberty 683
Medical Life in London.. 293
Medical Reorganization.. 416
Medical Law, How It is Used in Washington... 655
Medical Paris..... 608
Medicine, Modern 51
Medicines, Liquid, The Superiority of..... 306
Medicines, Liquid, Superiority of Over Alkaloids 449
Menopause, The..... 318
Mental Depression, States of 927
Milk, Pure, The Need of and the Difficulties Met With in Procuring It.. 554
Miscarriage 507
Mistaken Ideas in August MEDICAL BRIEF 752
Mistakes, Recital of..... 431
Moles, Hydatidform 87
Monopoly 422
More Caution Necessary. 355
Mr. Heron-Allen's Contribution to Medicine.. 266
Multiple Examination.... 512

N

Names, Instead of Principles 273
Nasal Cavities, The, and the General Practitioner 451
Nasal Deformities, Traumatic External, Correction of..... 468
Necrosed Bone of Head, Case of..... 253
Negro Problem, The..... 903
Nervines 192
Nervous System, The, as a Vital Keyboard..... 9
Nervousness 723
Neuralgia, Testicular.... 190
Neurasthenia 190
Neuritis, Alcoholic, A Contribution to the Pathology of..... 518
Nightmares 197
Nineteen Hundred and Five 1
Nursing 644
Nux Vomica Versus Strychnine 323

O

PAGE.
Obstetrics, A Case in.... 906
Obstetrics, A Peculiar Case in 86
Obstetrical Case, An Interesting 84
Oculo-Motor Centers, Effect of Lenses Upon the 984
Oil of Hyssop.....192, 430
Only Sees Flaws..... 101
Operation, Clamp and Cautery, The Pain Following the..... 296
Ophthalmia Neonatorum. 10
Ophthalmology, Modern, Some Elements in..... 389
Opportunity 844
Orders All Beards Cut Off 200
Organized Schemes..... 199
Ovary, A Case of True Abscess of the..... 653

P

Pains, Pelvic..... 384
Paralysis, Infantile, Notes on Tendon Transplantation in..... 778
Paris Hospitals and Post Graduate Work in Paris 205
Parisian Medical Chit-Chat 492
Pelvic Brain, The—The Cervico-Uterine Ganglion 560
Pemphigus 146
Pharmacy, Modern Advancement in 48
Phimosis—An Error of Diagnosis 47
Physical Development, Necessity of 710
Piles, Internal 760
Placenta Previa—Drug Addiction 510
Plant Chemistry..... 97
Plant Structures Versus Plant Fragments..... 401
Pleurisy Following Mumps 346
Pneumonia 176, 495, 551
Pneumonia, External Treatment of..... 155
Pneumonia, Fatality in.. 998
Pneumonia, Is Drug Treatment Useless in?..... 256
Pneumonia Not Necessarily Fatal..... 251
Pneumonia, Report of a Case of..... 325
Pneumonia, Some Observations on..... 419
Pneumonia, To Abort.... 512
Pneumonia, Treatment of 83, 181, 588

PAGE.
Poison Ivy..... 678
Poisoning by Kerosene or Petroleum 757
Poisoning, Lead, Chronic. 114
Polypi, Uterine..... 516
Post-Graduate Course.... 55
Post-Nubial Outrages.... 454
Pregnancy Complicated with Inflammatory Disease of the Pelvic Organs 799
Pregnancy, Extra Uterine, A Frequent Mistake in. 515
Pregnancy, Extra-Uterine, A Case of 749
Pregnancy, Uremia of, Report of Two Cases of.. 303
Preventive Medicine, 248, 333, 405, 481
Pro Bono Publico..... 426
Proctitis 530
Prostate, Hypertrophied, Histories of and Deductions from Thirty Operations for 967
Prostate, Hypertrophied, Observations Concerning the Bottini and Other Operations for... 827
Prostate, Hypertrophied, Some Abnormalities of the Bladder and Prostatic Urethra, Due to.. 912
Prostatectomy, Is It the Cause of the Enuresis That Sometimes Follows This Operation?.. 641
Prostatectomy, Perineal, Technic of as Used in Thirty Cases..... 574
Prostatectomy, Some Questions of Interest to the General Practitioner Regarding..... 497
Prostatectomy, Suprapubic 739
Prostatic Disease 92
Prostatic Hypertrophy—Its Relief by Perineal Operation 298
Prostatodynia 304
Prostitution, A Plan to Regulate 381
Prostitution, Etiology of. 723
Protect Your Normal Vitality 356
Pruritus 54
Pruritus Vulvæ..... 89
Psoriasis, The Treatment of 927
Psychic Powers of Man, Some Interesting Points Relating to the, Hypno-Telepathically Demonstrated 580
Publicity 6
Pyorrhea Alveolaris, Oral Disturbances from..... 792
Pyrosis 189

Q

PAGE.
Question? 431

R

Railway Surgery..... 223
Rectal Examinations, Concerning 221
Rectal Examination in Children 325
Regular Board Medical Examiners, State of Georgia 506
Remedies for Specific Conditions 540
Reminiscences of a Country Practice..... 679
Reminiscent Chats, 8, 106, 201, 282, 360, 436
Renal Disease, Serious, On Some Conditions in Which the Presence of Albumin and Casts in the Urine Does Not Necessarily Indicate . 875
Replies 88
Rheumatism, Blood Conditions in..... 671
Rheumatic Diathesis, Basic Facts Anent the 331
Rheumatism 191
Rheumatism, Articular... 90
Rheumatism, Diseases Which May Be Mistaken for 287
Rheumatism, Inflammatory 54
Rheumatism, Pathology and Treatment of..... 455
Rhinitis, Atrophic, The Treatment of..... 144
Ringworm, School, A New Cap Film Treatment for 767
Roentgeno-Therapy..... 232
Rupture, Subcutaneous, of Femoral Artery, Report of a Case of..... 796

S

Sabbatia Angularis..... 657
Scabies and Its Simplest Form of Treatment... 393
Scalp Wound 55
Sciatica 91, 430
Sciatica, Some Hydrotherapeutic Methods of Treating 557
Scotland, The Universities of 696
Sea-Sickness, The Use of Bromide in and in Combination with Drugs... 520
Semi-Revolution of the Earth—Evolution of the Brain 839
Serum 281
Sex and Tide Cycle..... 751
Sex—Dr. Lussier Answered 336
Sex Question, The...423, 665
Sex Question, The—Sexual Hygiene of the Hebrews 996
Shams 2
Small-Pox 21, 818
Small-Pox, The Effect of Vaccination on....677, 921
Some Practical Items.509, 650
Special Notice..... 97
Spleen, Hypertrophy of the 175
Sprains of the Ankle Joint, With Particular Reference to the Diagnosis from Fractures.. 472
Sprains, On the Treatment of..... 219
State Board of Medical Examiners 747
State Medicine..... 104
St. Vitus Dance..... 189
Sterility in American Women 859
Sterility, Prognosis in.40, 140
Stillingia Sylvatica—Stillingin 738
Stimulant, A, An Age That Craves 899
Stomach, Some of the More Commonly Encountered Conditions of the, and Their Diagnosis 685
Stomach Trouble 51
Stomach Troubles, A Plea for More Thorough Examination in 511
Stop and Think..... 100
Strength, The Keynote to. 584
"Subinvolution of the Abdominal Wall After Childbirth" 122
Success and Optimism... 198
Suggestion, Therapeutic: What Is It?.....412, 490
Suggestion, What Is?.59, 500
Suicide 444
Summer Complaint..... 510
Surgery, Abdominal and Pelvic—Some Factors That Prevent Success in 315
"Surgery, Gynecology and Obstetrics" 764
Surgery, Intestinal..743, 833
Surgery, Modern, A Brief History of, 69, 165, 257, 327, 402
Surgery, Modern, Retrospective View and Discussion of, Compared With the Administration and Application of Scientific Medicines.... 339

PAGE.
Surgery, Rectal, The Passing of General Anesthesia in..... 628
Surgical Operations vs. Medication 730
Sycosis of the Beard.... 686
Sympathetic System, The, and Pelvic Lesions 867
Syphilis 90, 265, 488
Systemic Disease, Are the Teeth of Diagnostic Value In? 27

T

Tabes Dorsalis..... 625
Tape Worm—Simple But Effectual Remedy..... 92
Teach Us How to Think.. 246
Texas State Board of Medical Examiners, Meeting of..... 432
The Abnormal Slanderer. 105
The American Doctor.... 196
The Diagnostician..... 281
The Folly of Dissembling. 594
The First Baby..... 742
The Growth of the Science of Medicine and the Progress of Medical Education in the United States..... 23
The Good-Natured American 843
The Ideal Physician..... 177
The Issue..... 332
The Late Dr. C. D. F. Phillips 195
The Only Danger..... 193
The Other Side..... 5
The Outlook for the Beginning Practitioner... 164
The Physician and the Philosopher 610
The Physician vs. The Bacteriologist 284
The Practical Man..... 923
The Pretender..... 197
The Provincial Hospitals of England..... 371
The Relation of Clinical Pathology to Practice. 870
The Wise Guy..... 279
Theoretical Versus Practical 593
Therapeutics, The Undulatory Theory in..417, 479
Thought, The Good and Bad Effects of 702
Thoughts, Morbid 771
Throat, Sore..... 156
Tides, The Cause of the.. 901
To Old Doc 85
To Make Rules for the Other Fellow..... 434
To Whom Do You Belong? 99
Tonsilitis 52
Tonsilitis, Follicular ... 55
PAGE.
Tonsilitis or Quinsy 1002
Tonsillotomy 378
Truth Versus Authority.. 275
Truth Will Out..... 357
Tuberculosis 975
Tuberculosis—A Preventable and Limitable Disease 379
Tuberculosis, Alcohol for —Whiskey, Beer and Wine Useful for Consumptives, Says Dr. Wiley 356
Tuberculosis, from a Hygienic Standpoint 892
Tuberculosis, Gastric Membrane in..... 155
Tuberculosis, Pulmonary, Elementary Facts Regarding 616
"Tuberculosis, Pulmonary, The Dangers of the Microscope in the Early Diagnosis of"..... 227
Tuberculosis, Pulmonary, The Early Diagnosis of 131
Tuberculosis, Pulmonary, The Modern Treatment of 81
Tuberculosis, Tent Life in the Treatment of..... 986
Tuberculosis, Warfare on —Fat the Germ Detroyer and Equalizer of the Body, with Especial Reference to Oils and Fats in the Prevention and Cure of Tuberculosis 135
Tuberculosis, Warfare on —Lung Excretion and Fermentation as Related to Tuberculosis — The Body Heat and Force— Fat Foods in Their Maintenance for the Prevention of Tuberculosis 228
Tumor 156
Tumors 54
Turpentine—Commonplace Remedies 674

U

Ulcers of the Leg, Treatment of..... 108
Unwise 97
Upper Air Passages, Etiology and Treatment of Some of the More Common Diseases of the.. 949
Ureters, Peculiar..... 657
Urethra, Stricture of the. 537
Urethra, The Treatment of the Pathological Conditions of the, by Means of the Modern Urethroscope 375
PAGE.
Urinary Difficulty 90
Use All..... 98
Uterine Disorders and Spinal Irritations; My Present Methods of Treating—The Evolution of an Idea..... 907
Uterine Hemorrhage Caused by Fibroids, The Treatment of..... 109
Uterus, Abdominal Section for Adherent Retroflexion of the..... 708
Uterus, Curettage of the.. 701
Uterus, Malignant Diseases of the, The Importance of Early Diagnosis in..... 894
Uterus, Retro-Displacements of the, The Importance of the Family Physician in..... 633
Uterus, The Undeveloped 939

V

Vagina, Certain Malformations of the, Surgical Treatment of..... 613
Venereal Sores Clinically Considered 83
Veratrum Viride, Drug Addiction and a Few Jottings on Typhoid Fever 756
Vibration, Mechanical, in Therapeutics 728
Vitality 76, 990
Vocal Cords, A Case of Early Appearance of Bilateral Adductor Paralysis of the, Due to a Mediastinal Growth (Carcinoma) 548
Vomiting 471
Vomiting, Carbolic Acid in 347

W

Walking Before Breakfast 103
Wanted, Information.... 192
Warts, Thuja as a Remedy for 292
Water, Boiling vs. the Knife 791
Why 101
Why People Grow Deaf.. 212
Why the Brief Attracts Attention 194
Witchcraft, Relics of.... 905
Women, Intellectual Exercise of..... 428
Wood Alcohol..... 195

X

X-Ray Therapy, Principles and Practice of..... 877

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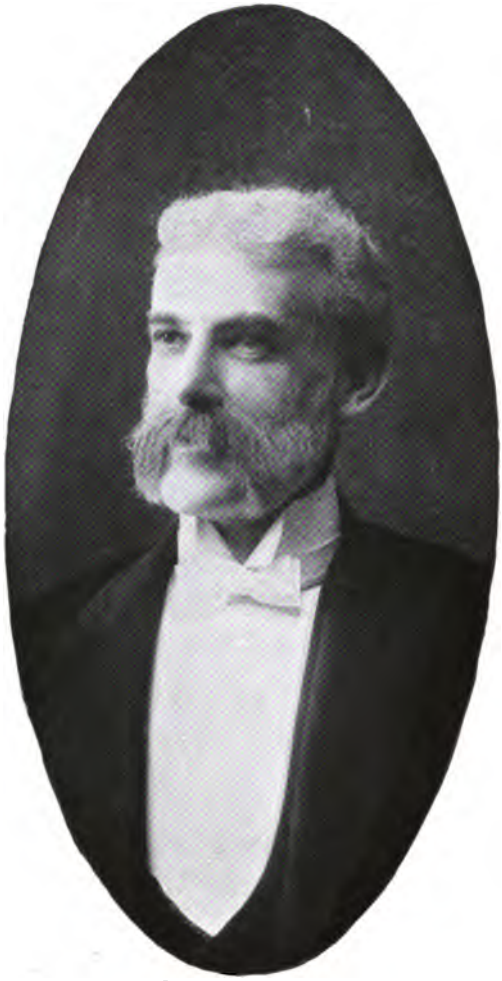

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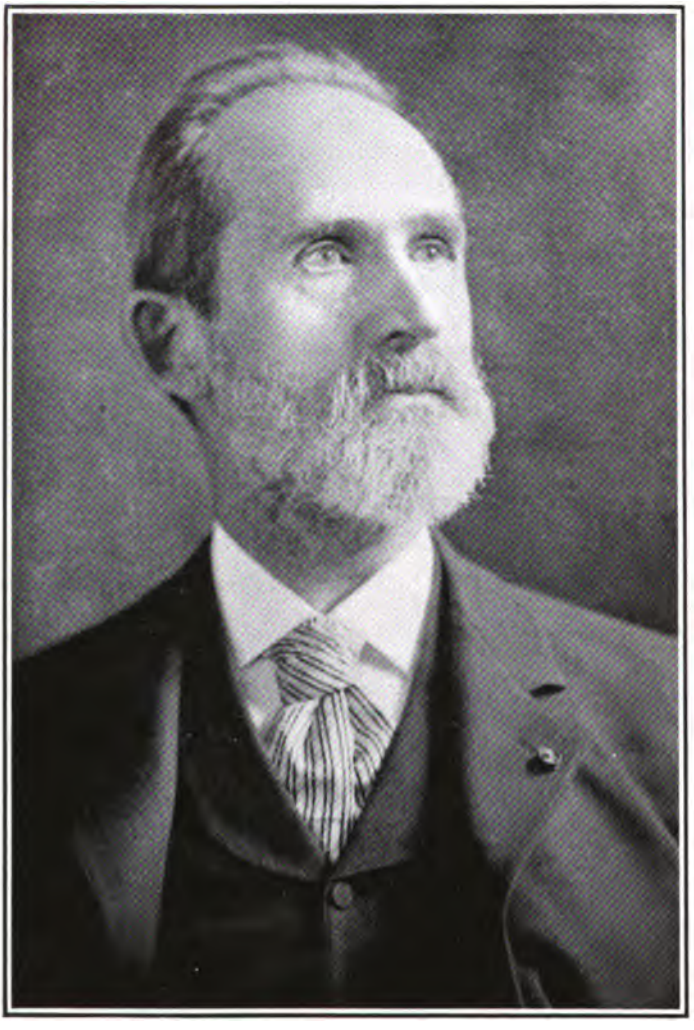

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Editorial.

1905.

We are pleased to announce that the various efforts put forth to increase the value of the MEDICAL BRIEF have been duly appreciated by the profession. We have received more subscriptions, and a greater number of advertisements in 1904 than in any previous year, and the indications at present are that 1905 will be largely in excess of 1904.

Every doctor now knows that no medical journal printed anywhere contains more practical everyday information of value to the physician than the MEDICAL BRIEF. In fact, most doctors now regard the BRIEF as an indispensable adjunct to practice. We can assure the profession that in the future, as in the past, neither money nor efforts will be spared to continue improving the BRIEF.

We hope the profession will strive to make as much progress in medicine as has been made by surgery. Physicians, through the efforts of the manufacturers of ethpharmal medicines for physicians' prescriptions, have had the therapeutic properties of many valuable plants made known to them. The knowledge of these fine preparations has opened the way for a scientific study of therapeutics, something impossible without remedies of a definite and uniform strength. The manufacturer of ethpharmal preparations has put a very different face on plant medication. He has studied the plant in its relation to soil, climate, growth, ripening, proper time to gather to obtain the active principles in their best state, whereas before his advent, medicinal preparations were made from dried material, gathered by uninstructed people without any regard to the vitality of the plant, or the use to which it is to be put. Naturally there is a wide difference between an ethpharmal remedy, the result of the most careful selection as to quality of material and process of preparation, and one to which no special thought is given.

A good deal is said about the power of advertising to popularize a remedy. The doctor must remember that neither a drug nor any other article will continue to sell

through advertising alone. It must have merit to sustain it or it will inevitably pass out of use. The ethpharmal manufacturer succeeds only when his preparation is reliable. Advertising simply introduces a remedy to notice; it can not make it succeed. The same holds good in every department of life.

Shams.

The world is full of shams. It is amusing to see one politician abusing another, gravely telling us how bad the other man is, and how good he is. It is also amusing and disgusting to hear one doctor abusing another when both of them are doubtless very good fellows if they could manage a little more tolerance and breadth of mind. Most of all do these emotions move us when we see a medical journal claiming to work solely for the profession, and abusing another because it works for self. As if everybody who knows anything did not know that the two are one and the same. It is only when a man does not know how to work for himself in legitimate ways, when he suffers from mental obliquity of some sort, that he begins to play upon the prejudices of people to enlist their support.

The honest person, the good citizen, the successful professional man, works diligently for himself. He is not afraid nor ashamed to acknowledge it. Why should he make any pretense over it, since it is at once a necessity and an honor to him.

When a man persistently tells people that he is the only honest man in town, most of them take the hint and buy a watch-dog. A man named Shakespeare once voiced the universal doubt of one who protests too much. When a man spends all his time praising himself and abusing his opponents, it dawns upon most of us that he has an axe to grind, and we begin looking for it.

We always know the sham man; can put our finger on him every time. When we find a man accusing another of being rotten in all his views, we are apt to conclude that he is in a nice mellow state himself, for we are all inclined to judge others by ourselves.

The doctor, of all men, should avoid shams; have nothing to do with them. People who are constantly patting themselves on the back for their services to humanity, and vociferously calling on their kind to bear witness to their value and their own entire disinterestedness, are fools or knaves. In either capacity they do not benefit the doctor. The people who have really benefited humanity have done it silently, unconsciously for the most part, in the course of the day's work, for which they exact and receive compensation. The honest man neither poses nor pretends, he neither exalts nor depreciates his services. He charges a fair price, and tries to give value for what he receives.

Did you ever notice that the self-styled virtuous man is always growling at somebody? When any man constantly asserts that he has all the honesty and virtue there is going, look out for him. Especially look out for him when he tells you he is working for humanity. Every doctor knows that when he does his best for his patient he likewise does his best for himself, and this is true in all other vocations. Such is the reliable man in every department of life.

Individualism.

This is a day in which it has become necessary for those who love independence to fight for individualism. Gradually we have had imported into this country ideas of compulsion. It is sought to force people by law to do certain things which, in a free state, are left to their own volition. And this idea of compelling people to do as the leaders think is getting the ascendancy in all departments of life, contrary to the spirit of constitutional liberty. To such an extent is this so, that the time has come when every patriotic man must fight it.

Every man should be vigorously opposed to the centralization of power, whether it be in the medical profession or in some other department. To encourage individual thinking and enterprise should be the watchword. No man who loves his country or his profession should submit to the leadership of a few. Never let the machine control you in either politics, religion, medicine or business. Always oppose special legislation. In this way you

will help to purify politics from graft, and lighten the taxpayer's burden a little. We do not want any more laws to control somebody.

The United States owes its present proud position to the efforts of the individual. Let every man think for himself, and refuse to be led. Being led simply means slavery of the worst type. The safety and future of this country depend upon whether the people shall resolve to act and think as individuals instead of organizations, machines, etc.

Medical Laws.

Politicians are always wanting to pass new laws because the law is their stock-in-trade. They work the people through their hopes and fears, ignorance and folly, and thus strengthen the machine. Every new law has to have somebody to tend its workings, and all these somebodies are subordinate to the will of the machine.

All these laws obstruct progress by handicapping and hindering a man's efforts to better his condition. When the doctor, living in a bleak New England State, finds it necessary to change his climate for one which is mild and dry, the first thing which confronts him is a medical law which bars him from earning a dollar until he has satisfied its requirements.

This same doctor may have been a successful practitioner for twenty years in his own community. The priceless knowledge of diseased conditions, and of drug indications, learned by observation and experience at the bed-side through these years counts for nothing. He must pass an examination similar to that required of the tyro fresh from medical school.

Such a condition of affairs is as intolerable as it is absurd.

Suppose you have practiced for ten or fifteen years in a small town, and now desire to remove to a city just across the State line and take up a specialty. Before you can do anything else you must put up a fee and take a trip to appear before the examining board of the foreign State to have your qualifications examined into.

The more a man thinks about the absurd situations and inconsistent practices brought about by passing fool laws the more he is opposed to them all in principle. A diploma from a reputable college should entitle a man to practice anywhere under our flag. If there must be a law at all, it should at least be uniform, a national law, requiring the same examination for all graduates.

Laws do no one any good except the politician, whose game it is. The doctor, as an intelligent, thoughtful man, should use his influence to discourage the growing and unamerican tendency to appeal to law as a remedy for all evils. Such a state of affairs is the politician's heaven and the people's ruin. It has come to us from across seas, and we must do our best to fight and exterminate it. There are principles and precedents in plenty in the old common-law to afford people all needful protection. The special law, as a rule, is but a wedge to introduce some sort of graft. Fees for doing this, that and the other, things which have no sort of right to existence but for the quiescent folly of people who echo the politician's glib and partisan arguments.

How senseless to make a free grant of power to some outsider to tax us, to interfere in our business, to sit in judgment on our capacity, which has already borne the test of years of experience, and had set upon it, in the first place, the seal of a duly-qualified and authorized body.

Do medical laws keep down competition, discourage quacks? By no means. The quacks find an opening of some kind, a mantle of some sort to shelter them. Doctors whose competition would amount to anything are too well-established to remove elsewhere save for pressing reasons. Laws benefit no one but the politician. Why play his game?

Financial Success.

The majority of doctors are hard workers, giving freely of their time, strength and knowledge to their patients. Comparatively few, however, meet with as much financial success as the same amount of effort in other lines of business wins.

The reason is that the doctor does not govern himself by business principles.

For instance, the doctor would stand a much better chance of financial success if he would establish a uniform system of charges, neither too much nor to little, and charge all whom he serves alike.

The old system of charging one man less than a service is worth, and another more because one happens to have more money than the other is not fair to either party, and is essentially unbusiness-like.

The grocer does not vary the price of a barrel of flour or a firkin of butter according to the circumstances of his customers.

The doctor's services are commercial commodities, his fee-bill should represent their value to him, and be uniformly the same. If one man finds it hard to pay the doctor, and another finds it easy, that is none of the doctor's business. He has performed his part, and is entitled to his money. Of course, if he chooses now and then to perform an act of charity, that is another matter altogether. Charity and business do not mix. Most people will pay those who press for an early settlement, and let those who do not go without. If the doctor is a good business man, he will see that his claim is presented in good season, and the fact that his charges are fair and uniform will aid in collecting them.

Another thing. Do not run long accounts. Better sit up half the night over your books once a month. Know just where you stand all the time. If you can not get all your money at once, get part, and take a note for the rest. A man will pay a note quicker than an open account. If you want to make a small discount for prompt cash, that is good business. It should, of course, apply equally to all.

You are just starting a new year. Put your business on a commercial footing, and see how it works for twelve months. Establish a uniform fee bill so that people may know exactly what it will cost them for advice and attendance. Doctors do not altogether realize how many people are held back from consulting a physician by the fear that they are laying themselves open to extortion. These people make good patrons, for they are honest and pay their debts. Moreover, they are the cautious and careful classes, who believe in prevention, but they fear that the professional advice is beyond their means.

It is more business-like and more profitable in the long run to have your services in demand at reasonable uniform rates than to do the most of your work for little or nothing, and then when you get a chance at a well-to-do man, charge him all that he will stand for, and so disgust and drive him off.

Think about this matter to some purpose. Do not let things run along haphazard. Be systematic and business-like. Most doctors work hard enough to have a handsome balance at the bank if they had their rights. And they do not have them because they do not go to work the right way to get them. And you need money. You can not get on in your profession without new books, new instruments, you want to take more journals, you want to take a trip now and then to pick up new ideas, a post-graduate course, perhaps; you want to buy a home for your family, send the children to good schools, fit your sons for careers.

Start the year right. Inaugurate a sound financial policy as a basis for prosperity, and see if it does not come your way.

Carry Sunshine With You.

By this we mean cultivate a sunshiny disposition so that you may carry its comforting radiance about with you. The doctor, especially, should never forget that happiness is just as contagious as measles. Therefore, he should put aside his worries and sorrows, invest life with the glow of optimism and enthusiasm. Melancholy faces and gloomy thoughts are the reverse of healthful. They should be excluded from the sick-room as carefully as poisonous vapors and noxious odors. We should be as careful to keep the moral atmosphere wholesome as the physical.

The cheerful word, the smile, the kindly, humorous gleam in the eye, the firm grasp of the hand, the clean little joke, no one can compute the good they do. In a few moments they change the whole face of things. All the hysteria which results from morbid brooding over fears

is gone, nothing seems so certain and so natural as recovery. The doctor has brought sanity, hope, courage, optimistic expectancy to do their healing work.

Happiness is an astonishingly good medicine for sick people. The sick are very receptive, responding quickly to manner. Appearances have an exaggerated effect on them. Now, to look happy one must feel happy, and this requires of the doctor that he cultivate optimism and enthusiasm until they become habitual, and he can wear them without awkwardness. It is easy enough for the doctor to find cause for enthusiasm in the noble profession he follows.

If the doctor adopts this course, he will find that the ignoring of the selfish side of his nature is repaid in many ways. First, he is a happier man; second, he is a more successful physician; third, he is a favorite with his patients. They love and depend on him, he is indispensable, and where is there a more gratifying sensation than the knowledge that we are indispensable in our small circle?

Bear in mind what Henry Ward Beecher said: "There never was a person who did anything worth doing who did not really receive more than he gave."

It is really astonishing how far the resolute determination to be happy and hopeful, no matter what turns up, will go in the way of lessening friction, mitigating personal suffering, even diminishing the sense of fatigue for a sunshiny disposition, favors the development of elasticity in the body, and the ability to throw off unfavorable conditions with ease. Everybody is glad to see the sunshiny man or woman, everyone has a kind word, a warm grip for him, it seems a pleasure to do him a favor.

It is strange that people do not realize more keenly the benefits of carrying sunshine wherever they go. Most of us are careful to secure the comforts of life for the body while paying little attention to the health and welfare of the soul. Light and warmth, food and exercise are even more necessary to the indwelling spirit. Physical comfort is an element of happiness, but the man who is always happy can disregard circumstances to a great extent. So be happy. Make it a part of your plan to be happy. One way to be happy is to read the MEDICAL BRIEF. Whatever may be said about the Editor of this journal, no one ever accused him of being unhappy.

The Other Side.

All men of logical mind are beginning to understand the necessity of reading the other side before coming to a conclusion about anything. There are always two sides to every question. The man who hears only one side regards that as authoritative, final, binding. He does not broaden and grow mentally as he should. The logical thinker, who is accustomed to hear both sides, so develops that it is comparatively easy for him to separate error from truth, know where to look for the nigger in the woodpile. There is nothing that tends to make a man liberal, tolerant, progressive, like hearing both sides of every question.

In the recent Presidential election, it was necessary for a man to read what both sides had to say. A knowledge of the statements of both Parker and Roosevelt was essential to a clear understanding of the situation and its needs. The results of the election clearly demonstrate that the American people believe in a man who *does something*, whose character is unmistakably stamped on everything he says and does. It is plain that the country believes in the sincerity, energy, courage and patriotism of Theodore Roosevelt. The people evidently prefer the positive to the negative man. Everybody likes a man who does something better than one who only criticizes and abuses. The success of Theodore Roosevelt and Grover Cleveland puts this beyond a doubt.

Some years ago a physician consulted us in regard to an obstinate case of indigestion. The patient had tried many doctors, and his trouble had been pronounced incurable. We advised the use of California sylmar olive oil, but, as every physician who had seen the case had advised something different, the doctor decided not to try the oil until he could talk with us personally. A few weeks later he came to St. Louis and called on us.

In describing the case, he said that the man suffered severe colicky pains, and passed large quantities of mucus. We suggested to the doctor that the patient was suffering from colica mucosa, or, in other words, catarrh of the stomach and bowels, these organs being full of mucus. We demonstrated the theory of the oil's action by placing some mucus in a glass, and adding a little oil, which penetrated the mucus, the two passing out together. Practically the same thing takes place in the stomach and bowels.

On returning home, the doctor gave his patient half an ounce of olive oil an hour before breakfast each morning. The result was that the patient was completely relieved, and is now in excellent health. Although several years have elapsed, he has had no further trouble with catarrh, colics, indigestion, etc.

This case illustrates the advantage of taking advice on the other side of a question. So with all questions. There is always another side. Do not give up a patient until you have investigated the other side, and all the various remedies. Do not take anyone's word for it that a patient is incurable.

Publicity.

Publicity is a more reliable weapon to control certain evils and abuses than passing so many laws. There is coming to be a perfect monomania in this country for passing laws which benefit no one except the politician. These laws create new offices, increase our taxes, and engender a false feeling of security, as witness the Slocum and Iroquois horrors.

The newspapers nowadays are full of reported adulterations of food, and discussions are in order as to the best means of preventing this constantly growing evil. A law is not adequate to reach the trouble. We have tried laws before. They are expensive, and do not give results. A detailed public exposure of these adulterations would destroy the industry.

This creates an opening for the services of the analytical chemist in a new field. If offices were opened in each of our large cities to which samples of suspected food might be sent for analysis at a small fee, the report to contain the name and nature of the substances used for adulteration, together with the process of analysis, so that there may be no mistakes about it, and the name of the manufacturer, there is no doubt that the resultant publicity would make it impossible to impose upon people. The public would in time educate itself, and know upon what brands of food it could rely for purity and quality, and what to avoid. The people would be likewise impressed with the importance and responsibility of knowing what they are eating. Such knowledge would be of the greatest assistance to the doctor in controlling various manifestations of malnutrition, diatheses and so on.

There is no doubt that publicity furnishes better protection than a special law. Our common law provides principles to cover all infractions of right of whatsoever kind or character without burdening the taxpayers with the increased expense of another special law.

The food chemist will attend to his business because it is his livelihood. His profession will be one which the growth of commercialism will make of increasing importance to the community. After the doctor has prescribed the proper diet for his patient there still remains the problem of securing these foods in a pure form. The quality of our food has much to do with the prevention of sickness, the comfort and happiness of people. The food chemist is bound to become popular, and his work will do more to control adulteration than all the laws of Christendom.

The political well-being of the Republic requires that men associate themselves together and make a study of means to put a stop to the incessant passing of laws. Our taxes are rolling up at a tremendous rate to support parasites. The inspection of the Slocum by government officials was a farce. Inspectors appointed by the government perform their duties in a perfunctory way, yet the people are compelled to pay for unsatisfactory service.

Let the man who wants to eat pure food consult the food chemist, and pay him for his services just as he pays his

physician. The fewer laws we have the better. At the present rate of increase the time must come when we shall have no one to pay taxes. Let us learn a lesson from Germany, groaning under laws, and taxed to death without accomplishing anything because all her efforts are misdirected.

Do Not Halt.

When an individual believes that he has reached perfection progress is at once arrested, so far as he is concerned. The St. Louis World's Fair is a good illustration of this. A great many Eastern people did not go to St. Louis because in their self-satisfaction they took it for granted there could be nothing for them to see or learn at an exposition held in a Western city. Hence, they derived no profit from the most wonderful exposition ever held in any city at any time.

The Exposition was an unparalled success. The exhibits were the most remarkable the world has ever seen. Even those whom travel and culture have made more or less familiar with the achievements of modern progress, were amazed at the completeness and beauty of the exhibits, the amount of research brought to light by many of them. Never, except in dreams, has the like of this great Exposition been seen before. Those who were wise enough to embrace the opportunity will never cease to congratulate themselves.

Another thing noted by visitors to the Exposition was the astonishing progress made by the West. Those who inspected the exhibits in the Building of Education, could not fail to see that Western colleges are rapidly outstripping their Eastern rivals. The day is not far distant, unless Eastern colleges soon wake up from their lethargy, when fathers and mothers will prefer to send their sons and daughters to Western colleges as best fitted to equip them for life's battle. The West is not contented to rest upon its oars. There is much to do, and it is well to be up and doing.

We can all learn a lesson from this. Doctors, in particular, can afford to take nothing for granted. Let us always keep up with the van. Be fully awake all the time. Never have fads or set beliefs, but keep our eyes and ears open for more information, greater knowledge. Never have a prejudice for or against a person or thing. Never get in the dangerous position of thinking we know it all.

How to Succeed as a Doctor.

We have received a great many letters the last few years asking how to succeed as a doctor. The answer is simply to be yourself. Be honest, straightforward and kindly. Treat your patients as you would have them treat you. Be a gentleman in every sense of the word. Treat all men the same way.

Read all sides of every question. Do not try to follow anyone. Have positive views on subjects with which you are familiar, and assert them fearlessly. Do not wait to find out what the other man is going to say, or surrender your own judgment at the dictation of authority. If, after investigation, you are convinced you are wrong, be equally fearless in saying so. We all make mistakes. None of us are infallible.

Do not try to manage the other man's business. It will take all your time and brains to look after your own. Do not dabble in outside business. Instead, devote your leisure time to studying up your cases or subjects which interest you in a professional way. The result is sure to tell in your practice. Do not let yourself be prejudiced for or against anything.

Do not do things from a sense of policy. Be honest, courageous, diligent, and bide your time. If you will bear these things in mind, your success is sure. People always find out exactly what you are sooner or later, and if you deserve success it will be yours.

Never be afraid of abuse. If you are honest in your views, there is no reason why you should fear it. You can not avoid it whether right or wrong, but it will not hurt you, because only a few narrow-minded fools will believe it. People whose opinion is worth anything never listen to calumny, well knowing it is the price of all success. In fact, abuse is more apt to help than to harm you.

It never hurts a man to be abused except when he does wrong. That particu-

lar time he usually escapes, for strangely enough the self-appointed censor does not resent real shortcomings any more than he does obscurity. A man only becomes a target when he stands in somebody's light. Fair-minded people will not take the word of another in such a matter; they will always investigate, and then the truth will come out.

Last, but not least, take all the medical journals you can pay for, of all the pathies. Have your own views on all subjects, but read widely with unprejudiced mind. Do not believe things merely because others say them. Investigate for yourself, and come to your own conclusions. People often say things, especially injurious reports, for interested motives.

Journalistic Enterprise.

One of the finest evidences of journalistic enterprise lies before us in the shape of the October number of the *National Druggist*, Henry R. Strong, Editor and Publisher, St. Louis, Mo. This number gives the best description of the medical, surgical and scientific displays at the World's Fair of any publication we have seen. This number is of as much value and interest to the doctor as the druggist. It contains an immense amount of reading matter of a character which well repays perusal to the man in search of information. The doctor can not do better than to send ten cents for a copy to the *National Druggist*, St. Louis, Mo.

[Written for the MEDICAL BRIEF.]

Reminiscent Chats.

BY OLD DOC.

Hello, boys, how are ye, this fine frosty morning? I'm going to fire a few facts at you before I start out on my rounds, so here goes.

Say, you want to remember that vomiting in children is often a prominent symptom in pneumonia, so whenever you find it present at this time of year, don't fail to examine the lungs carefully.

In a healthy woman, who has passed a menstrual period, vomiting is an almost certain symptom of pregnancy.

Say, when you prescribe cimicifuga, if you add a little aconite, you will get quicker results. This is a point worth remembering.

In taking the pulse, don't forget you must consider the state of the mind and the body to get a correct idea of its meaning. In a good many cases, the pulse showing is of little importance as compared with the temperature.

Intermittence in the beat of the heart has scared lots of people. It is not a dangerous sign at all; is due to nerves in most cases, and may occur in perfectly healthy people, disappearing without treatment when the exciting cause is removed.

Say, boys, a bread poultice, made up with strong vinegar, and applied for several nights, will take the soreness out of corns, and loosen them so they can be easily picked out.

When you run up against a case of delirium tremens, you had better give your heart remedies by the needle. The stomach is sluggish, and either refuses to absorb or is very slow about it.

To know how to handle small troubles is a good card for the doctor. If you can give a man relief in even such a little thing as a painful corn or an aching tooth, he will remember you as good for something the first time there is sickness in the house. If a troublesome tooth has a hole in it, the pain can be stopped, in many cases, by clearing it out, and packing with acetanilid.

Say, boys, don't forget that poisons, even in small doses, sometimes cause jaundice.

Don't use digitalis, not even by hypodermic injection, in cases of sudden heart failure or shock. It is not a drug for emergencies, it acts too slowly.

Say, boys, there's nothing better than injections of a hot infusion of hamamelis for the relief of a sore rectum. Also there are few things which hurt so bad. Your patient will be correspondingly grateful to the man who eases him.

Watch a wound, and if suppuration appears, open and make fresh dressings without delay.

Congestive asthma is relieved by setting up a good action of the skin and other emunctories of the body. A favor-

ite prescription with me for this and other respiratory troubles is ten drops each tinctures of aconite and ipecac, eight ounces respiton, teaspoonful three or four times daily. If, however, there is an element of reflex irritation caused by enlarged tonsils, the presence of adenoid tumors in the nose or throat, an over-tight or adherent prepuce, etc., additional treatment to remove the cause of trouble will be necessary before any permanent relief can be had.

One reason we doctors have so much trouble curing chronic diseases is that we so often forget that the cause may be hydra-headed, so to speak. We may remove sections and sections of tape-worm from a man, for instance, but until we get the head his trouble will go on multiplying itself. So with many diseases, we must chop down all the heads, get rid of all the disease-producing elements.

Say, boys, when you want to make a radical change in a patient's diet, I advise you to begin by ordering a fast. By so doing, you will find the patient's system responds much more quickly and kindly to the change.

False labor pains are often troublesome both to doctor and patient. Considerable relief can be obtained by means of enemas to unload the bowel, hot baths of ten or fifteen minutes' duration, and teaspoonful doses of neurilla repeated at two or three-hour intervals.

At the first sign of bone felon, wrap the finger in salt, and keep it soaked with turpentine. Nine times out of ten that will be the last of it.

Pilocarpine, in doses to cause free sweating, ought to be tried in glaucoma.

Say, hyoscyamus is great in cases of delirium with hallucinations.

Well, I must be off. Mr. Editor, please correct mistakes, no time to read this over. So long, boys.

I have in my office twenty full volumes of the good old MEDICAL BRIEF. Have been reading it all the time since it was a little blue-backed journal away back in the eighties. It has made the rocky way smoother for me a great many times and I love it like an old friend.—G. H. ALEXANDER, M. D., Hot Springs, Ark.

[Written for the MEDICAL BRIEF.]

The Nervous System as a Vital Keyboard.

BY YANDELL HENDERSON, PH. D.,
Assistant Professor of Physiology in Yale University. Medical Department.
New Haven, Conn.

The attitude of the modern physiologist toward the functions and intimate structure of the nervous system was well developed in the lectures of Prof. Sherrington, of Liverpool, in the Silliman memorial lectures at Yale University last spring. In his view the relations of the organs of the body in the higher animals one to another, their working, and the reaction of the organism as a whole to its environment, are directly dependent upon the functions of the nervous units, and their combination to form the nervous system. By the combination of these nerve units or neurons, to form that vital keyboard, the nervous system, the activities of the various organs of the animal body are kept in adjustment.

By this adjusting keyboard, also, the flood of impressions from the world about the organism is received, and those reactions of the motor organ in turn produced which determine whether the animal shall obtain its food and propagate its kind, or furnish itself as the next meal for its enemy.

Nerve fibers or axons are mere conductors, over which an impulse travels at a speed of 100 feet per second. Investigation has not revealed what this impulse really consists in. Modern microscopical methods have shown that a synapse consists in the interlacing of the minute fibrils or dendrites of one neurone with those of another or of many others. The effector muscles of man are few. The number of axons to these organs is proportionate to the number of muscle or gland cells composing them. The complexity of the co-ordinated control is referable to the fact that while there are but 500,000 axons to all the effector organs of the human body, yet it is through the use of these "common paths" that all activities are effected. There are 2,000,000 receptor or "private paths," each of which is thrown into activity by only one particular form of stimulus at a particular spot, as by a ray of light on a cone of the

retina, or a touch of the finger-tip. When we imagine each of the 2,000,000 private paths connected to each of the 500,000 common paths, or perhaps each connected to each through many and diverse routes, we arrive at some notion of the complexity of the vital keyboard.

These lectures are to be published in book form by Yale University.

400 Prospect Avenue.

[Written for the MEDICAL BRIEF.]

Ophthalmia Neonatorum.

BY DAVID WEBSTER, M. D.,

Professor Emeritus of Ophthalmology in the New York Polyclinic; Surgeon Manhattan Eye and Ear Hospital; Consulting Ophthalmic Surgeon to the Hospital for Ruptured and Crippled; Consulting Physician to the Skin and Cancer Hospital; Fellow of the Academy of Medicine, American Medical Association, Etc., Etc., Etc. New York City.

Ophthalmia neonatorum is one of the forms of conjunctivitis which, without proper treatment, is moderately certain to destroy the eyesight. It makes its appearance within a few days of the birth of the infant, and is undoubtedly in nearly all instances due to gonorrheal infection.

At the Manhattan Eye and Ear Hospital, where a considerable number of these little patients are constantly under treatment, routine examinations of the conjunctival secretion are made, and gonococci are almost always found in large numbers, and the patients are never discharged until gonococci are no longer found in the secretions.

The symptoms of this disease are redness of the eyeball, swelling of the eyelids, often chemosis, and a very abundant purulent discharge.

Treated conscientiously and energetically, such a case will be nearly well in about two weeks.

The treatment consists in constant cleansing with a warm saturated solution of boric acid; as often as any secretion appears it should be washed away carefully, and this usually requires a repetition of the washing every fifteen or twenty minutes. Ice cloths should be applied as much as possible, but it is very difficult to keep them on the eyelids of these little patients, who are usually nervous, and are constantly moving their heads about, and removing the ice cloths.

Argyrol, anywhere from twenty-five to fifty per cent solution, should be dropped into the eye every two hours after cleansing. At least once a day the eyelids should be everted and the argyrol rubbed into the palpebral conjunctiva very thoroughly by means of cotton twisted about the end of a cotton holder. Where dropping the argyrol in in the ordinary way has failed in arresting the secretions, I have found it to be arrested in two or three days after applying it in this way—rubbing it in. The argyrol is superior to all other applications because, while thoroughly efficient as a bactericide, it produces no pain, smarting, burning or irritation whatever.

The chief danger in these cases is from ulceration of the cornea. An ulcer may be arrested at almost any stage, or, in spite of all treatment, it may go on to the destruction of the whole cornea. Ulcers, however, rarely appear in this disease if the case is treated early, and in the way I have indicated.

Quite a large proportion of our cases at the Manhattan Eye and Ear Hospital come to us after a week or more of neglect, and after the eye has either been destroyed or sloughing of the cornea or ulceration has already set in. In these cases, of course, the most we can expect is to save partial vision.

Very rarely, indeed, only one eye is affected. In such a case the other eye must be most carefully protected from the first, either by a bandage or by Buller's shield, if it can be kept on the eye of the little one.

As the disease is almost certain to be caught, if any of the secretion gets into the eyes of the nurse, or any other person, the greatest care should be taken to destroy all things that have been applied to the eye. The ice cloths and the cotton with which the eyes were wiped should be put into a newspaper cornucopia and conveyed to the furnace. The nurse should be exceedingly careful to wash her hands thoroughly after having used them about the eyes of the child so as not to commmunicate the disease to herself or anyone else. I have known more than one nurse to lose her sight through carelessness in taking care of children with ophthalmia neonatorum.

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[Written for the MEDICAL BRIEF.]

On the Management of Insanity in Private Practice, With Some Hints as to Prognosis.

BY EDWARD GEORGE YOUNGER, M. D., M. R. C. P., D. P. H.,

Senior Physician to the Finsbury Dispensary and Late Physician to the St. Pancras and Northern Dispensary.
London, England.

A case of insanity occurring in the practice of the general physician is almost certain to be the cause of much anxiety and worry to him unless he has had special training in the subject of mental diseases, which is rarely the case. The problems as to diagnosis, prognosis and treatment call urgently for prompt solution, and one of the greatest difficulties is to decide whether the case is one which can be treated at the patient's own home with a reasonable prospect of recovery for himself, and safety to those around him, or whether immediate removal to an asylum is necessary. Should the case occur in a large town, the advice of a skilled alienist can readily be obtained, but in remote country districts the whole burden of responsibility is thrown on the shoulders of the practitioner, and it is often a heavy one.

In the present short paper it is only possible to deal with those forms of insanity which are most likely to be met with in everyday practice, and to call urgently for treatment, and these my own experience has shown to be: mania, melancholia, delusional insanity or paranoia, general paralysis, puerperal insanity, and alcoholic insanity. Three-fourths of all cases admitted to asylums are examples of either mania or melancholia, and, indeed, almost every case of insanity can be assigned to either the maniacal or the melancholic type, and these have been spoken of as the pure or primary psychoses.

As in the course of this paper I shall have occasionally to refer to hallucinations, illusions and delusions, it is well here to differentiate between them, as they are often confused with one another.

Hallucinations are *false* perceptions of the senses—sight, hearing, taste, smell, or common sensation. They occur in many forms of insanity, but, on the other hand, a person may have hallucinations, and yet not necessarily be insane; he may recognize them as such.

Illusions are *mistaken* perceptions of the senses. The patient does actually see, hear, etc., something, but he mistakes it for something entirely different; he may, for example, see clouds in the sky and mistake them for armies fighting in the air.

If a patient believe in his hallucinations or illusions he is insane.

A delusion is a *false belief* in some fact which may have reference to the senses, as when a man thinks a rat is gnawing at his vitals, or it may be quite independent of these, as when he fancies he is a monarch, or the Messiah, or a great general, and so forth.

A person who has delusions is necessarily insane.

Almost all cases of insanity are preceded by a stage which is known as the period of emotional alteration. This may either be well-marked or very slight. The patient may have neglected his business, and his habits and temper may have altered; alternate periods of depression and excitement may have taken place; headache and insomnia are generally marked symptoms, and a general rule is that the greater the insomnia the more rapid is the progress towards undoubted insanity. If the physician be fortunately called in during this period of emotional excitement, an attack of insanity may often be warded off by judicious treatment of the insomnia by such drugs as trional, sulphonal, and chloralamid. Warm baths, also, with cold affusion to the head, will often procure refreshing sleep.

It will be advisable, I think, for me to give a short description of the symptoms of each of the forms of insanity I am about to deal with:

MANIA.

Acute, Sub-Acute or Hypomania, Chronic Mania.—Acute mania has a brief promonitory stage, generally unrecognized, but usually taking the form of restlessness and slight depression, after which there is a burst of violent excitement, with noisy incoherence, which may continue for days and nights together, the sense of muscular fatigue being altogether wanting. The tongue is furred, skin sweating and offensive, the bowels constipated, urine scanty and high-colored. The hair is harsh, and has lost its natural gloss. The habits are probably wet and dirty. The restless excitement may continue for days and nights together, the sense of muscular fatigue being altogether wanting.

The prognosis in early single attacks is good, but as the attacks multiply, it becomes less favorable, and the disease may end in chronic mania or dementia. There is in all cases a somewhat remote danger of the patient dying of maniacal exhaustion.

As regards treatment, this can only be carried out in an asylum, or a lunatic hospital, and the sooner the patient is removed the better for him and his friends. The utmost the family physician can do is to endeavor, pending removal, to procure abatement of the noisy and constant excitement, and here chloral hydrastis is a useful drug, but in administering it we must always bear in mind that the tendency to death in acute mania is by asthenia. It is important, also, to remember that opium and its alkaloids are worse than useless in acute mania. Even if a strong hypodermic dose of morphine induce sleep for an hour or two, the patient invariably wakes unrefreshed, and in a more excited state than he was before its administration.

Sub-Acute or Hypomania differs from acute merely in degree, as its name implies. In its very mildest form, little may be observable beyond some excitement, usually of an hilarious character, with restlessness and diminished power of application. The more pronounced forms approach more nearly to the type of acute mania, though stopping short of the noisy excitement and dirty habits.

The mild form is often transient, and may get well without any treatment at all. It is, however, likely to recur, and should it do so it will be probably in a more accentuated form. In this mild variety, treatment without removal to an asylum may be tried with a reasonable expectation of success. Rest, change of air and occupation, with the bromides, especially the ferrous bromide, in five-grain doses—will be useful. It is desirable to avoid both narcotics and alcoholic stimulants, as in these cases a craving is easily established.

In the more pronounced form of hypomania, asylum treatment is the best. Recovery in a few weeks, or possibly months, will most probably take place, though a very few cases drift into chronicity.

Chronic Mania is rarely seen in private practice, its victims usually being already inmates of asylums. The symptoms vary greatly. The delusions may be many or few. Some of these patients are docile and work fairly well under supervision, but they are nearly all liable to outbreaks of maniacal excitement at irregular intervals, home treatment being, therefore, out of the question. More or less brain degeneration is always present, and the prognosis is most unfavorable.

MELANCHOLIA.

Simple Melancholia, Melancholia with Delusions, Agitated Melancholia, Stuporous Melancholia, or Melancholia Attonita, Chronic Melancholia.—Some of the above will need merely a passing notice, as in them home treatment is quite impossible.

Simple Melancholia.—This in its mildest form amounts merely to depression of spirits, with gloomy and desponding thoughts, forebodings of evil, and a general pessimistic view of life, but without any irrationality. It has been said that those who have suffered from a bad attack of "the blues" have had an experience of a mild form of simple melancholia. In the more severe form all the symptoms become accentuated, the patient becomes hopeless and despairing; he sleeps badly, and awakens from his broken rest in deep despondency.

It is in this stage that promptings to suicide are likely to manifest themselves, and here it is important to remember that a melancholiac's symptoms are, as a rule, most pronounced in the morning, and are likely to ameliorate as the day wears on, so that if a melancholy patient destroys himself, the deed is almost always done in the morning hours. In early simple melancholia, the great question arises as to where ordinary depression of spirits ends, and true melancholia begins. It is important also to ascertain, if possible, whether any suicidal impulse is present, but leading questions on this subject must be carefully avoided.

The prognosis in simple melancholia is generally good, though improvement is slower than in corresponding cases of mania. Most recoveries take place within twelve months, and improvement in the general health, with increasing appetite, is usually of good augury. Some cases, however, become chronic.

It is these cases of simple melancholia which are most likely to do well outside an asylum. The very mild ones, like those of mild hypomania, will often recover without any treatment beyond a rest from work, a change of air, and an occasional mild hypnotic (chloralamid for chronic). In the more marked cases, if home treatment be decided upon, the patient should be in sufficiently good circumstances to afford a change of air and scene, and two trained attendants, for, on account of the tendency to suicide, he must never be left alone, especially in the morning hours, for the reason mentioned above. The principal objects of treatment, after constant supervision, are to obtain sleep, to give adequate and even abundant nourishment, and to relieve the usual constipation.

In all cases of melancholia, solid food, if the patient will take it, is much more beneficial than the most nutritious slop diet. Obstinate refusal of food will often disappear after a few days' complete rest in bed. Should forcible feeding become necessary, or should the promptings to suicide be very marked, asylum treatment is indicated. In the insomnia of melancholia, in great contradistinction to that of mania, some of the preparations of opium and morphia are valuable; they do not seem to aggravate the constipation, and the drug habit does not seem to get formed in these cases. The Turkish bath is a useful adjunct. Some very good results have lately been obtained from the high-frequency current. The constipation must be treated on general lines, but no medicine should ever be administered surreptitiously, *i. e.*, mixed with the food or drink.

Melancholia with Delusions.—In these cases, hallucinations of hearing are very common, and next in order come those of sight, smell and taste. Those of smell are of grave import, and generally point to incurable insanity, very likely of alcoholic origin. These patients often think their souls are lost, and that they have committed the unpardonable sin. They very commonly recover, but their progress is slow, and may extend, with relapses, even over a few years. Occasionally the disease becomes chronic. Asylum treatment is imperative.

Agitated Melancholia is commonest in women. The patient is never still for one moment, but paces the room, or sits rocking her body to and fro, sobbing and moaning. She may tear her hair, or pick her skin into sores. Hallucinations are not, as a rule, present, but the delusions are numerous and distressing. She may think she has brought ruin on all her friends; that her soul is lost, and so forth. It is a curious fact that these pa-

tients, in spite of their despair, are not, as a rule, actively suicidal, and they often take their food well. A large number get well eventually, but improvement is slow. Here, again, asylum treatment is the only course to pursue.

Stuporous Melancholia or Melancholia Attonita.—These patients will sit for hours in one position, plunged in melancholy, and seeming to take no notice of their surroundings, but they will almost certainly attempt suicide if they get a chance. They sleep badly, and are unwilling to take food. A great many of them gravitate towards a condition of dementia. They can only be managed in an asylum.

Chronic Melancholia.—This, like chronic mania, is rarely met with in general practice. It is usually a result of one of the acuter forms. These cases are unsuited for home treatment, for although remissions are common, relapses are equally so, and, during the latter, suicidal impulses are often very marked. The tendency is always towards incurable weak-mindedness.

Delusional Insanity or Paranoia.—This is a chronic disease characterized by fixed delusions, and unaccompanied by any failure of the reasoning faculties. These fixed delusions are generally of a disagreeable nature. The patient often thinks that strangers can read his thoughts, and they make gestures to him on the streets. Another common delusion is that paragraphs in the papers refer to him. Hallucinations of hearing, taste and smell are common. Soon he becomes indignant and resentful, and he is then prone to assault some passerby as the author of the annoyances. Later on, delusions of grandeur commonly develop, and all his irascibility tends to be swallowed up by his conceit as weak-mindedness becomes more marked. The prognosis is bad, but these patients often live to a great age.

It has been said that all paranoics are potential homicides, and that for this reason an asylum is the only place for them. There is much truth in this, but there is another side to the question. The power of self-control in some of these patients is very great, and I have latterly taken this very much into calculation when the question of placing them in an asylum has been under consideration. However, I find the dangerous proclivities vary much with the patient's natural temperament, whether irascible and hasty, or gentle and patient. The person of the former temperament will assuredly seek to revenge himself on his persecutors, and, perhaps, commit a murderous assault on some inoffensive person, while one of the latter may content himself with tearful and piteous protests to his friends.

I have now under my observation two cases of paranoia of the latter type, both men, and both are at present at large and following their employment after a fashion. One of them has hallucinations of smell, delusions that people are spreading reports that he has had syphilis, and an erroneous idea that his rectum is obstructed. The other thinks he is pointed at in the streets, watched in all his movements, and that there is a conspiracy against him. They are both timid, patient men, and, in my opinion, most unlikely at present to act on their delusions, but rather to take them "lying down." They will, no doubt, come to an asylum sooner or later, as every paranoic must, but as each is able to earn a small living, and as neither of them shows at present any signs of violence, I think I am justified in taking the risk.

General Paralysis.—This terrible and fatal malady usually makes its appearance between the ages of thirty-five and fifty. It is much commoner in men than in women. Many of its early symptoms are physical rather than psychical, such as hesitation and slurring of speech, fibrillary tremors of lips, tongue and facial muscles, pupillary changes, enfeebled gait, and slight attacks of "faintness." These may be accompanied or followed by a silly kind of elation of spirits, forgetfulness, drowsiness, neglect of business, and, later, by the well-known myalomania, with delusions of wealth and grandeur, when the patient will squander money on useless articles. He may, sooner or later, find his way to a police court in consequence of some absurd act of indecent exposure, or some senseless theft.

Soon the attacks of "faintness" develop into epileptiform seizures known as congestive attacks. Remissions of all the symptoms very often take place, and may

last some months, but the patient always relapses. In the last stage he becomes thinner, and more demented; the congestive attacks are more frequent; he takes to his bed through sheer debility, and is noisy, wet, and dirty, dying, as a rule, from asthenia, with probably some hypostatic pneumonia in about two or three years, from the beginning of his illness. These cases can only be treated in an asylum, and it is important to certify them early, owing to their tendency to squander money, and thereby to ruin themselves and those dependent upon them. Even should long remissions take place, it is much better to keep the patient in the asylum, for the relapse is bound to come sooner or later. I know of a case where a general paralytic was thrice discharged from an asylum "recovered," each time to return "relapsed," after having rendered his wife pregnant again—a truly wretched lookout for the unhappy offspring.

Puerperal Insanity.—This form of insanity is most frequent in women of insane heredity, especially where this heredity exists in the female line. It may take the form of mania, melancholia or dementia. If the insanity comes on within a fortnight of delivery, the maniacal form is the commonest. Sleeplessness, restlessness, and refusal of food are early symptoms. The pulse is frequent, the tongue white, and the bowels are constipated. The patient may be suicidal or homicidal, or both, and she generally takes a dislike to her husband and her child.

When puerperal insanity develops a month or more after delivery, it usually takes the melancholic form. Sleeplessness and refusal of food are again marked symptoms. Suicidal tendencies are most likely present, as also may be hallucinations of smell; and here, again, the hatred towards husband and child may be even more marked.

In both of the above cases the milk and lochia may remain normal, but a suppression of one or both is most likely, and the lochia are sometimes offensive. The prognosis is usually favorable, unless a typhoid condition should set in. Improvement is often preluded by a return of the milk and lochia, if these have been in abeyance. In rare cases, however, the patient may sink into permanent weak-mindedness.

Treatment may be carried out at home under the care of two nurses, and almost constant supervision and vigilance on the part of the physician, but even with these provisos, if the patient be violently homicidal or acutely suicidal, or require forcible feeding, she will do better under asylum treatment. The diet should be generous, with plenty of milk, eggs and beef tea, and, perhaps, some port wine. Sleep is best obtained by a warm bath and a dose of alcohol at night, narcotics not being usually successful in these cases, but should such be imperative, some preparation of opium is the least harmful. Attention must be paid to the condition of the bowels and the vagina.

It is important to remember that there may sometimes set in, a few days after labor, a transitory delirious condition, which often yields readily to a purge and a narcotic draught, but during which the patient may commit infanticide, and yet have no recollection of her crime.

Alcoholic Insanity.—For the purpose of this paper, I propose to divide alcoholic insanity into:

1. Acute alcoholic insanity or delirium tremens.
2. Insanity from drink (proper).
3. An incurable condition of chronic mania or dementia, which may be a sequel to repeated attacks of either (1) or (2).

(1) *Delirium Tremens.*—I am aware that many authorities do not include this among the insanities, but as it is the form or alcoholic neurosis most frequently met with in private practice, I think it should be included here. After a short period of restfulness, sleeplessness and general irritability, with tremors, the patient becomes delirious, talking incessantly. He makes futile attempts to dress himself or to pack his portmanteau, as if going on a journey, but he never gets any further in his preparations; indeed, motor restlessness is extreme. Hallucinations of sight are always present, and generally refer to such small animate objects as beetles, spiders, rats, etc. Hallucinations of hearing, taste and common sensation are less common, though I have often seen them. The skin is clammy and sweating, the tongue furred. Vomiting may take place.

The temperature is normal, or perhaps slightly raised. Convulsions may occur, and a sharp rise of temperature may foretell meningitis.

The disease is of an asthenic type, and the patient may die of heart failure after only a few days' illness. Ordinary cases get quite well, as a rule, in a week or so. They can be treated quite successfully at home under constant and intelligent supervision. In the early stage before delirium has set in, an aperient and a few doses of a bromide mixture, with, perhaps, a chloral draught at night, will very likely do all that is required. Even in the second stage the same course of treatment is often successful. If chloral does not produce sleep, a round dose of morphia, hypodermically, say half a grain, will prove efficacious. Complete rest in bed, with plenty of fluid nourishment, are essentials.

It is a moot point whether in these cases stimulants should be cut off altogether, or whether they should be allowed in reduced quantities. My own experience has been that if the patient be seen in the premonitory stage, an attack of true delirium tremens is most likely to be precipitated by cutting off all stimulant, as is so often done, while, on the other hand, a reduced quantity of the stimulant the patient has been used to, may ward it off—a very important consideration in the case of a business man. If the second state has set in, the patient is better without a stimulant. He will have to put up with at least a week's illness, so the opportunity may be advantageously taken of ridding his system of alcohol as far as may be. Cases of delirium tremens should not be sent to an asylum if this step can be possibly avoided. It is hard that a man should be branded as a lunatic for such a fleeting disease, however much his own excesses may have caused it.

(2) *True insanity from drink* is a disease of grave import, and of much longer duration than the above. Before it declares itself, the chronic alcoholic has probably begun to manifest such symptoms as diminished will-power and general moral deterioration. He becomes suspicious and dissatisfied, and a common early symptom in a man is a delusion that his wife is unchaste. In the case of a woman, the husband may be similarly suspected. Presently, hallucinations set in, especially those of hearing and touch, and delusions about plots and poisoned food, and now the patient becomes dangerous. When thoroughly developed, this form of insanity may assume either a maniacal or a melancholic type, the former sometimes carrying with it exalted delusions. There may also be tremors and some inco-ordination of speech, so as to lead to a suspicion of general paralysis, but any doubt is soon cleared up by treatment and suppression of alcohol, when in true alcoholic insanity marked improvement will soon take place. Many of these cases get perfectly well, but complete recovery is not rapid, and may be a matter of two years or more. A persistently intemperate person may have several attacks, and subside eventually into incurable chronic mania or dementia. Epilepsy may occur in the course of true insanity from drink. Treatment can only be carried out in an asylum, as the patient's delusions, especially those as to his wife's unchastity, render him very dangerous. Moreover, it is only in an asylum that he can be thoroughly kept from alcohol.

Chronic mania or dementia from long-continued alcoholic excess does not differ materially in its symptoms from ordinary dementia, and the only treatment in this complaint is detention in an asylum.

Dipsomania or Periodic Alcoholism requires a few words here, though in this disease the mental condition is the cause instead of being the effect of alcoholism. True dipsomania differs from alcoholism in being a periodic seizure. It is rare before the age of thirty. A neurotic heredity is nearly always present. The attacks are preceded by headache, sleeplessness and depression of spirits, and then the terrible craving comes on when the sufferer will swallow anything alcoholic if he can not obtain the ordinary beverages. Methylated spirit, medicinal tinctures, and even varnish have all been pressed into the service of the dipsomaniac. The attack may last for days or weeks, and is succeeded by great prostration and remorse, and I have known of suicide being committed under such circumstances. At the present moment I have such a case under

my care, where the patient is actively suicidal. He will settle down in the course of a few days as he has done before.

These cases can scarcely be looked upon as certifiably insane, and even if admitted to an asylum they could not be detained there after the urgent symptoms had passed off. Confinement in an inebriates' home is almost the only treatment likely to prove of benefit, but if there be strong hereditary tendency to dipsomania, any treatment is almost hopeless.

In conclusion, I suggest that the cases of insanity occurring in private practice, and demanding early decision as to treatment, may be conveniently classified as follows:

(*a*) *Cases which may be treated at home with a fair prospect of recovery.*—Mild hypomania, simple melancholia, puerperal insanity when not actively suicidal or homicidal, acute alcohol insanity (delirium tremens).

(*b*) *Cases which may possibly be managed at home—at any rate, for a time.*—Delusional insanity of the imbecile and inoffensive type. A very few cases of general paralysis during long remissions.

(*c*) *Cases in which asylum treatment is absolutely imperative.*—Acute mania, melancholia with delusions, agitated melancholia, stuporous melancholia, chronic melancholia, general paralysis when well marked, true insanity from drink, alcoholic dementia.

[Written for the MEDICAL BRIEF.]

"Excretory Irritation," or the Correlation of Symptomatic Skin Rashes With Other Organic Inflammations.

BY DAVID WALSH, M. D.,

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At the Birmingham meeting of the British Medical Association, in 1890, I read a short paper,* discussing certain forms of symptomatic rash, and their relation to inflammations of excretory organs other than the skin. Taking various forms of dermatitis associated with internal causes, such as the rashes of scarlatina, of copaiba, and of gouty eczema, I observed that in each of these apparently widely diverse conditions there were the common features of an inflamed skin and of a blood-supply containing a specific and definite irritant, even if the precise nature of that irritant could not always be demonstrated.

"Excretory irritation" is the name I gave to the action of any blood-borne irritant capable of setting up inflammation in its passage through one or more excretory organs of the body.

As the result of my investigations, it seems to me to be a general law that any substance capable of setting up a symptomatic inflammation of the skin might affect other excretory organs in the same way. The results of this general conclusion are far-reaching and practical. If a drug be found to cause a rash, for instance, then it may be suspected of inflaming other excretory outlets, and of thus becoming a starting point of organic disease.

The chief eliminating organs of the body are, of course, the kidneys, skin, alimentary canal and the lungs. Their excretory function is interchangeable up to a point, as when in cold weather the activity of the skin is lessened, and that of the kidneys increased, as shown by the larger amount of urine passed during the winter, or in advanced stages of chronic nephritis, when urea is thrown off freely by skin, lungs and bowels. This power of vicarious function, however, has its limits. If the action of the skin be arrested absolutely, as in the classical case of the Italian child coated with gold leaf to play the part of an angel in a public procession, the results are rapidly fatal.

In advanced Bright's disease, again, the available limit of relief by sweating and purging is quickly reached.

A little consideration will show that the action of many familiar drugs is due to the irritation, or, if the term be preferable, the stimulation of the various excretory organs of the body. Take the case of mercury, which acts as a diuretic, a purgative, and a stimulant of the liver, besides exercising a powerful action in some skin diseases. The experimental aspects in this drug have been ably sum-

**Medical Press and Circular*, October 22, 1890.

marized by Dr. C. D. F. Phillips.* He quotes Riederer and others, and concludes that mercury has a special determination to the liver and kidneys, and is eliminated mainly by the bile or the urine. He also cites Pavy, Overbeck and Kussmaul to show that during pronounced mercurialism albuminuria may occur with or without hematuria.

It would be outside the scope of the present article to follow up this particular point in detail, but mercury may be briefly compared with arsenic and iodine. Concerning these three drugs in another article I wrote:

"We may draw the following general conclusions as to arsenic, mercury, or iodine, or of their compounds as used in practical medicine:

1. They are alterative, antiseptic and poisonous.

2. They are epithelial irritants.

3. They are eliminated from the body by one or all the various excreting organs.

4. They may cause multiple dermatitis.

5. In moderate doses they may cause diuresis or transient albuminuria, and in large doses, albuminuria, hematuria, and suppression of urine.

6. In large doses they have been shown experimentally to disorganize the kidneys in lower animals, and a similar result has been often met with in acute poisoning in man."†

There is no need to labor the point as to the constant use of excretory irritants or stimulants by physicians. Ample evidence of the fact may be found in the names applied to various groups of remedies according to their action upon this or that eliminating organ. Thus we have had from time immemorial such terms as expectorants, diuretics, and purgatives. With regard to the last mentioned class, purgatives, most of them act ultimately by the stimulation of liver or intestinal excretion. In the case of calomel it seems likely that the drug is absorbed in the stomach and duodenum to be excreted by way of liver and intestine. If mercurial ointment be absorbed through the skin, or a dose of perchloride be injected subcutaneously, the drug is partially excreted by the liver, and presumably partly, also, by the bowel, and acts as an aperient. Similarly, castor oil absorbed through the skin is excreted in the intestinal tract, and acts as a purgative. In both these latter instances the action clearly results from the stimulation of glandular, and, perhaps, also of muscular structures, set up by the passage of a particular drug from the blood to the intestines. This general statement applies to the glandular stimulation of the liver as well as of the bowel.

The principle of general excretory irritation as manifested by certain drugs introduced into the circulation was then extended, in my original paper, to diseases attended by rash. In that case it soon became evident that a similar connection could be established between a common blood-borne irritant and inflammation of the various channels of exit of materials excreted from the body. Scarlet fever affords a good instance. It may safely be assumed to depend upon invasion by a specific pathogenic micro-organism; an early sign is a diffuse scarlet rash, followed by desquamation. The kidneys are often seriously affected, probably to a small extent in every case, and the nephritis not infrequently drifts into chronic kidney disease; diarrhea sometimes occurs; bronchial inflammations are common, and sore throat one of the most characteristic signs. Gout, to take another general disease, is often accompanied by eczema and other skin troubles. The tendency of gouty patients to bronchitis, dyspepsia, diarrhea and kidney troubles, need not—from my point of view, all of excretory origin—be pointed out to medical men.

The various blood-borne substances capable of setting up irritation of the excretory organs of the body I called "internal irritants," as a matter of convenience. Some of the reviewers in 1897 made merry over that title, but in spite of that attitude it is now in daily use both by dermatologists and by general physicians.

Under the name of "Internal Irritants" I included all substances circulating in the blood capable of setting up a skin rash or dermatitis of any kind. They were classified under the headings of:

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*_Materia Medica and Therapeutics_, C. D. F. Phillips —Third Edition, London, 1904, p. 673.

†_Excretory Irritation_. David Walsh, M. D., London, Bailliere & Cox, 1897, p. 59.

(*a*) Drugs.

(*b*) Accumulation of normal excretory products in blood (*e. g.*, uremia, jaundice).

(*c*) Specific disease poisons:

1. Pathogenic micro-organisms and their products, *e. g.*, enteric fever.

2. Products of micro-organisms used as drugs, *e. g.*, antitoxin.

3. Poisons obscurely produced, *e. g.*, that of gout.

The reader who has followed my line of reasoning so far will be able to apply it readily enough to the foregoing classification.

Actual proof, direct and indirect, of the presence of the various kinds of internal irritants in connection with inflammation of various excretory organs has been found in the following ways:

1. Some irritant drugs, as iodine, bromine, arsenic, have been detected in the excretions of the inflamed skin, as well as of other excretory organs.

2. In eczema of gouty persons, urates have been found on the skin surface, and urea in uremic conditions.

3. In the case of infectious fevers, the specific micro-organisms themselves must necessarily be thrown off from the body or the disease would not be spread. (Even in the case of diphtheria the specific bacillus has been found in the urine.)

4. In the excretions of organs other than the skin the presence of the internal irritants, whether chemical or bacterial, has been often demonstrated by chemists and bacteriologists.

If the general law—as I venture to call it—of excretory irritation be true, it will be of universal application. From it one may draw a number of deductions, the truth of which may be readily tested. Starting with the proposition that under the influence of an internal (or blood-borne) irritant the skin suffers as one of a group of excretory organs, and that all those organs may be similarly affected by an internal irritant, it follows that we must look with suspicion upon any rash-producing drug as a possible source of mischief in the kidney and other excretory organs. To take an instance, sulphonal often produces an erythematous or purpuric rash; it may also set up hematoporphyrinuria, a serious and often fatal condition.

Horatio C. Wood* states that the exanthem of sulphonal poisoning may be bullatous, but is usually a minutely papulous eruption which has been described by some as resembling that of measles, by others as like that of scarlet fever. It is often symmetrical, and shows a disposition to follow the nerve trunks. With regard to hematoporphyrinuria, it may be pointed out that hematoporphyrin (iron-free hematin) occurs normally in the urine in minute quantities, and may be considerably increased without affecting its color. When present in large quantities, the urine presents a dark port wine aspect, and does not give the guaiac reaction. The early recognition of hematoporphyrinuria is best made by the spectroscope. Its importance in cases of chronic sulphonal poisoning can not be overestimated, and, as Murrell has pointed out, such cases not uncommonly terminate fatally. The excretion of port-wine urine by a patient taking sulphonal is an indicator for immediately stopping the administration of the drug, and for giving alkalies freely. After death, Stern and Oswald found necrotic changes in the epithelium of the renal glomeruli and of the secreting portions of the tubules, whilst Kast found, in dogs, hemorrhage into the glomeralar capsules. In some cases the renal trouble has been confined almost to a glomeralar or cortical nephritis.

The obvious practical lesson is that sulphonal is not the simple and harmless drug that many works on *materia medica* and therapeutics would have us believe.

Another rash-producing hypnotic, chloral hydrate, irritates the kidney. It is excreted by the kidneys, partly unchanged, but chiefly as glycuronic acid, producing slight diuresis and spurious glycosuria. Probably part escapes by the skin also, as a variety of eruptions may attend its prolonged use. Paraldehyde, trional, acetanilid, phenazone, phenacetin, may any of them produce a rash. The possibility of their setting up kidney mischief will add another argument against

**Therapeutics, Its Principles and Practice.* Eleventh Edition, 1902.

their use except as an occasional remedy administered under medical supervision.

Trional, like sulphonal, may disorganize the kidneys, and a similar result may be anticipated in other hypnotics that produce a rash.

In cases of phenacetin poisoning, the urine gives a positive reaction with Fehling's solution, although it contains no sugar.

As regards drugs, then, we are enabled to arrive at two good general principles, namely:

1. *To suspect danger to kidneys and other excretory organs in any drug that produces a rash.*

2. *Never to give a protracted course of a rash-producing drug.*

Arsenic produces multiple rashes. It also irritates the kidneys, and cases have been reported where chronic kidney disease has followed its prolonged administration. Yet arsenic is often given, especially in skin troubles, for months and even for years together. In this case, "Out of sight out of mind" appears to be true of that most delicate and much-abused excreting organ, the kidney.

The specific virus of the exanthems is thrown off from the body by the excretory organs, inflicting upon the latter more or less damage. The fact of the passage of the virus is shown by the subsequent infectiousness of the malady (*i. e.*, in all, or nearly all, communicable fevers.)

In 1897 I wrote of scarlet fever: "The question is, through what particular channels of exit do the active germs (presumably present) escape? If through the kidney and bowel discharges, then it is tolerably certain that effective measures are not taken in one case out of a hundred, even in our best ordered fever hospitals to disinfect these evacuations. The only attempt at systematic disinfection of scarlet fever cases appears to be directed to the skin, the clothing, and other objects that have been in contact with the skin. Upon logical grounds there seems to be good reason for regarding with grave suspicion all excreta from a scarlet fever patient."*

*"*Excretory Irritation*," op. cit. p. 36.

I then proceeded to discuss the probable excretion of the pathogenic bacteria of typhoid fever, and of other specific fevers by the skin, kidneys, and other excretory channels. That was in 1890, and when the disinfection of urine in typhoid fever was, I believe, unknown, although now in 1904 it is a routine practice in the metropolitan infectious hospitals. In 1897 the disinfection of urine and all other excretions in specific infectious fevers was specifically suggested by me as desirable upon grounds arrived at by pure reasoning founded upon the facts of general excretory irritation. At the later date, I think I am right in stating that disinfection of typhoid urine was not in vogue in the London fever hospitals.

The law of excretory irritation has not been generally accepted under that title amongst British medical workers. On the other hand, it has never been upset by adverse criticisms. One gentleman at a medical society quoted a passage from Trousseau to the effect that a poison in the body might affect various outlets, and appeared to think in that way my conclusions had been anticipated by those of the illustrious French professor. So far from that, occasional references of a similar kind may be found scattered throughout the whole range of medical literature from Galen onwards. To speak vaguely of the elimination of a virus from the body, however, is a different matter from demonstrating the principle of the inflammatory action upon all excretory organs by blood-borne internal irritants, whether the latter be of a chemical, an auto-genetic, or a bacterial origin. It is certain that, nowadays, the principle is widely accepted by medical authorities, although the name of "excretory irritation" is not added. Under different guises my original theory has been arrived at by various continental and English writers during recent years.

The BRIEF comes promptly every month. As father is an editor, we have magazines and papers galore—none, however, which is read with more interest than the BRIEF—always something of interest and value for every member of the family.—GUSTAV E. HENCKEN, M. D., Ravenswood Station, Chicago.

[Written for the MEDICAL BRIEF.]

Small-Pox.

BY FREDERICK H. DILLINGHAM, M. D.,

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Small-pox is a subject of great interest to the medical profession, on account of the numerous types which have been prevalent over the United States for some years past, and the fact that, as a rule, the first cases have not been correctly diagnosed, and the true nature of the disease recognized only after it had made considerable headway.

During the twenty-two years that I was connected with the Department of Health in the city of New York, I saw nearly fifteen hundred cases of small-pox, and probably as many more which were incorrectly reported as such, and I can truly say it is often one of the most difficult diseases we have to diagnose, and sometimes a positive diagnosis is impossible.

Small-pox is one of the most contagious of the exanthemata, and few persons exposed to the disease escape unless protected by a previous attack or vaccination. The disease is common to all ages, and the contagium is present in the exhalations, secretions, and especially in the crusts. There is no danger of contagion during the period of incubation, before the prodromal symptoms appear. The period of incubation is usually about two weeks, although I have seen it vary from seven to twenty-one days.

Invasion is usually marked by chill, often convulsions in children, severe frontal headache, and pains in the back and limbs, and, as a rule, there is high temperature. The prodromal symptoms, however, will not always give an indication of the severity of the disease, especially in the milder cases. A rash resembling that of scarlet fever or measles sometimes appears before the true eruption, and is most frequently seen in the inguinal region and in the axillæ. Another form is the hemorrhagic, in which petechiæ appear over the whole body, even on the mucous membranes, and the patient may die before the appearance of the true eruption, in which case a correct diagnosis is often not made until other members of the family are attacked with small-pox.

In a typical case of small-pox the eruption appears on the third or fourth day as small red spots, which, in a few hours, become papular, elevated, and "shotty" to the touch, and are usually seen first on the mucous membrane of the mouth, then on the forehead and wrists, and extend gradually over the whole body.

With the appearance of the eruption the premonitory symptoms usually disappear, although they may continue for several days. The papules increase in size, and become vesicles with clear contents on the fifth or sixth day, often become umbilicated, and on the eighth day contents are yellowish in color, the umbilication disappears, and the form becomes globular. The pustules may dry quickly and become crusts. This process takes place first on the face, and follows the course of the eruption. The pustulation, fever, and general symptoms return, but subside usually after two or three days, although they may continue longer. In confluent cases, symptoms are more severe, and the lesions run together and coalesce. In mild or modified cases there may be no prodromal symptoms, and the eruption may be the first thing noticed; the lesions may be very small and develop quickly, some not advancing beyond the papular stage. Again, they may be superficial and become vesicular during the first twenty-four hours, and sometimes are seen first on the body instead of the face. I have seen a case where there were only six lesions on the body, and they entirely disappeared in seven days.

A few years ago the authorities all maintained that the lesions in small-pox never came out in successive crops, but I have seen a number of cases where papules, vesicles, pustules, and crusts were present in the same area.

The disease most likely to be confused with small-pox is chicken-pox. In typical cases there should be no difficulty in making the diagnosis, but those of the irregular type often present great difficulty

even to those who have had a large experience. There is no symptom or character of the lesion that is found in chicken-pox that I have not seen in some degree in small-pox, and it is necessary to carefully consider the early symptoms and character of the lesions. Some claim that chicken-pox does not occur in adults, but I have seen many such cases.

In making a diagnosis, the following points will be of value, although in the irregular cases the symptoms vary, and none of them can be depended upon. The invasion is more severe in small-pox, and lasts three or four days, while the eruption appears on the first day in chicken-pox, and there is no secondary fever. In some cases of small-pox the invasion may be slight or not noticed, and the secondary fever absent. The temperature in small-pox usually falls when the eruption appears, while it increases in chicken-pox during its development. In small-pox the eruption appears first on the mucous membrane of the mouth, then on the forehead, and wrists, while in chicken-pox it is first seen on the shoulders and chest, although it may be present in the mouth.

In small-pox the lesions are more uniform and deeply seated, and commence as small papules, not usually becoming vesicles before the second day, while in chicken-pox they appear as maculæ, which develop into vesicles in a few hours, and are very seldom shot-like, but superficial, flat, and of irregular shape. The vesicles usually have a firm base in small-pox, while they are superficial, and can be easily brushed off in chicken-pox. In small-pox the eruption usually follows a regular course over the body, and does not appear in successive crops as in chicken-pox. Umbilication may be seen in chicken-pox, but is not as general as in small-pox. The pustules in small-pox keep their form well for several days instead of becoming flattened and breaking down, as in chicken-pox. The secretion in chicken-pox is mostly transparent. The duration of an attack of chicken-pox is much shorter, and there are few scars.

In measles, the catarrhal symptoms are a great aid in the diagnosis, the temperature gradually increases, and reaches its height while the eruption is appearing over the body, but there is not the rapid fall seen in small-pox. The eruption spreads very rapidly, and the lesions are larger, crescentic, and more superficial, without the "shotty" character, and never become vesicles or pustules.

The hemorrhagic form is sometimes mistaken for scarlet fever, but the constitutional symptoms are more severe, and the eruption does not disappear on pressure, and is of a more intense red color. The absence of the crusts, the condition of the tongue and throat, hemorrhages of the conjunctiva, should exclude scarlet fever. In syphilis, the history of the case and character of the lesions should enable one to make a diagnosis. I have seen persons suffering at the same time with small-pox and scarlet fever, small-pox and measles, and small-pox and syphilis and it should be remembered that this may occur.

Treatment.—All carpets and furniture should be removed, and the room should be well ventilated. Cleanliness of the patient is very important, and the linen should be frequently changed. Everything that has been in contact with the patient must be disinfected. The treatment is mainly symptomatic. It is often necessary to give opium or one of the cold tar series to relieve the pain in the beginning. The diet must be light during the early stage of the disease, and it is well to rely upon milk and broths. Cold drinks may be freely given. The fever may be reduced by cold sponging or by wet pack. The lesions should be protected from the light, and lint soaked in a weak carbolic or bichloride solution can be applied to the face and hands. The body should be anointed with vaseline or some oil which relieves the itching, keeps the crusts moist, and prevents desquamation from flying in the air. If there are many lesions on the scalp, the hair should be cut short. Particular attention should be paid to the condition of the eyes, mouth, throat and nose, and they should be cleaned and washed with an antiseptic solution several times a day. The patient must not be discharged until all the pocks have been removed, and the desquamation has ceased.

148 West Eighty-Fifth Street.

A merry Christmas and happy New Year to all.

[Written for the MEDICAL BRIEF.]

The Growth of the Science of Medicine and the Progress of Medical Education in the United States.

BY JOHN C. LE GRANDE, M. D.,

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When we review the work of the past centuries in the general scientific world, it is not strange that we find that the science of medicine has kept equal pace, and has, as the other sciences, passed through the formative and chrysalis state to a condition of steady growth, whereby it has developed into a fully recognized and distinct science. That it should have remained so long as charlatanry, and that the physician should have been regarded through that period as a quack or "hoo-doo-man" can be readily explained in the light of our present knowledge.

The science of medicine embraces the total knowledge of all the different branches of science, and the art of practicing medicine is the art of applying the principles of all scientific methods for the purpose of relieving suffering humanity.

With this definition of the medical science, we can see that our present system of medicine has developed by a process of evolution and natural growth, progressing methodically with the development of the composite sciences, and as knowledge grows, as all nature, by the law of occasion, and necessity, it happens that we find the sciences in any period in the same condition as the existing state of society. In developing history of the medical science, we find that this relation has always been invariable, and we can determine the condition of medicine at any past century by knowing the state of society at that time.

The beginning of the nineteenth century seems to have been the birth of the renaissance of science in Europe. The way having been prepared by the five former centuries of intellectual culture and development of the classical education; and, as science and liberal education bear the same relation to each other as fact and philosophy, we find that as one grew, the other expanded, and as one expanded the other grew. With this relation and interdependence, a little philosophy and a few facts found in the earlier part of the nineteenth century, have, by the process of induction and deduction, so expanded until the scientific method has invaded every branch of knowledge and every process of life. We no longer act by instinct, but by reason; no longer live in darkness, but in truth.

The use of medicine or remedies had its birth from a condition of necessity. The fact that the human being became very early cognizant that he was mortal, that not only must he die, but that he was subject to many diseased conditions which were curable, made him very early investigate the causes of death and disease, and to devise means for their prevention. As we trace the history of medicine until it became a science, we find that as other things produced by conditions of necessity, it was subjected to some trying ordeals, and some very bad practices following the laws, causes and progress of society at any period.

The first historical champion of its cause we find in Hippocrates, who flourished about 500 B. C.; after him came Galen, who probably pursued the same course, and used the same remedies, which consisted of a few botanical compounds, and some mineral alkalies; in the fourth century, A. D., we find hospitals established, and the science of sanitation founded. About this period one of the great masters died, who, during his life had promised to leave to his pupils a volume containing all the secrets that pertained to medicine. After his death the much coveted, large and beautifully bound volume was found, whose size indicated much untold knowledge, and many unknown secrets. On being opened, the following words were found: "The whole secret of medicine consists in keeping the feet warm, the head cool, and purging." Such was the condition of medicine at that time.

At the middle of the fourteenth century we find the bubonic plague raging in Europe, which the faculty of Leipzig attributed to effluvia from the existing vol-

canoes. It was from this cause that Venice had three officers appointed to guard the public health. During the middle of the fifteenth century, there was caused to be appointed by the imperial diet physicians in every part of the German empire, whose duty was the guarding of public health. In the sixteenth century we find Paré, the father of French surgery, and Harvey, the demonstrator of the circulation of the blood, at work in France and in England. At the middle of the eighteenth century there was not a privy closet in Madrid—the excretory matter was thrown at night into the streets, to be removed the next day by public scavengers; the general opinion of the physicians and officers of sanitation was that it would purify the atmosphere.

The King of Spain then gave an edict for the establishment of closets, which was strenuously opposed by both laymen and physicians. They yielded, however, with the permission to put them near the kitchens, in order to purify the food by the emanations from the closets. Such was the condition of the science of medicine and the state of society in certain parts of Europe at that time.

In the middle of the eighteenth century, Velpeau, dressed in rags, and amid the derision of his companions, was studying anatomy. In 1776, Jenner made use of the process of vaccination. At the beginning of the nineteenth century there were no microscopes which could be used for investigating tissue. A volume of "Clinical Medicine," published in 1806, has no mention of the anatomical changes in heart disease. In 1808, Corvisart explained the uses of percussion in diagnosticating disease. Laennec, in 1819, described the stethoscope, thus making use of invaluable instrument in the termining changes in closed cavities. In 1827, Bright laid the foundation for investigating the changes in the kidney by urinary changes. Latour, in 1837, analyzed and explained the causes of putrefaction, and thereby paved the way for Lister's work thirty years later. In 1847, Leedy discovered the trichinis spiralis. Anesthesia came into use about the middle of the century, which completely revolutionized the science of surgery. Virchow, in 1860, announced his great cellular theory, which has made the study of medicine a study of science. Oil immersion lenses had now become perfected, and made the causes of many diseases known, immediately following which Pasteur discovered the cause and cure of rabies, making the beginning of serum therapy. The bacillus of malignant edema was discovered, in 1875, by Pasteur; in 1880, the bacillus tuberculosis, by Koch, the bacillus diphtheriticus by Klebs. The bacillus typhosus by Eberth. The tetanus bacillus by Nicolaier. The pneumococcus, by Frankel, in 1884. The cholera vibrione, by Koch.

Several years later, the plasmodium of malaria, by Laneran. In 1894, the bacillus of plague, by Kitasato. Serum-therapy now came into use, which has robbed many of the infectious diseases of their terrors.

This was followed by the discovery of the cause and prevention of yellow fever. Then came the investigation of the mosquito as an intermedial host in the transmission of the organisms of malarial and yellow fevers. Along with this came the increasing number of discoveries with the Roentgen rays. We make mention of these merely as epochs showing some of the steps of progression, by which medicine has become a science. In surgery the steps of improvement have been equally noticeable, and it has been lifted from a simple trade of a barber to an exact, perfected, and brilliant science. Such names as Park, Velpeau, Lister, McDowell, Sims, Tate, Emmett, and many others, adorn the pages of its history.

The territorial growth of the science of medicine and medical education has been co-extensive with its intrinsic growth. Beginning in Europe, following civilization westward, it first met the United States in the Eastern States. Here it was confined a long time, because the pioneers of the country were busy for a century or more with questions not more vital, but more prominent

At the beginning of the nineteenth century we find the science with a fairly strong foothold. At this time there were four medical schools in this country, and the nucleus of the American profession was formed.. The profession, however, had not united themselves into a body, nor had the legislatures of the

States enacted any statutory laws for the regulation of practice. The people had only a quarter of a century before proclaimed the republic, and naturally revolted against anything with the semblance of restriction. Both laymen and physicians lay dormant until 1832, when New Orleans lost eight thousand of her fifty-five thousand population from cholera. This made the necessity for some method and organization.

In 1848, the American Medical Association was formed, which at first endeavored to take care of everything which pertained to the practice of medicine in the United States.

In 1865, we find a State Board of Health in Louisiana, to be followed, in 1870, by one in California and Massachusetts. In 1872, a National Board of Health was formed, under the auspices of Congress. While our science was gradually growing on the people through its branch of sanitation, the people were gradually increasing in number, prosperity, wealth and liberty. This growth, of course, broadened their mental horizon and culture, but the full necessity for recognition, organization and legislation was not felt until 1877, when yellow fever spread its ravages over the entire seaboard.

In New Orleans alone, more than fifteen thousand people were infected. This gave an impetus to medical thought and medical education; our profession was regarded as a distinct body, demanding recognition and legislation. The profession at once began to form themselves into State, county and municipal societies, and by a liberal policy proposed to further the science of medicine, and protect the health of the people, and by liberal grants from the people, to protect themselves.

Medical education since then has taken on new life and growth. The four medical schools which existed at the beginning of the nineteenth century have gradually extended their influence until we now find in almost every city in our land a medical institution, equipped with the best corps of teachers, and the most scientific methods.

This progress has been especially great in the Central, Western and Southern States, which only a few years ago were isolated from home medical education. Until recently, it was customary for all medical geniuses, discovered in these States, to go eastward to seek great opportunities, but to-day their physicians, their medical laws, their organizations, their societies, their teachers, their schools, their medical pupils, are the peers of any country.

This great spreading and growth of medical education in the United States has been due, first and foremost, to the high esteem with which the physician is held by the people; to the great progress in public education, thereby stimulating the physician to greater effort and greater demand, and at the same time furnishing him with opportunities for better preliminary education; to organization and judicial legislation, thereby making a unit of the profession, by which joint effort may be made in promoting their welfare, and for public protection; to specialization, by which the several different branches of medicine have reached a state of perfection, which could hardly have been otherwise attained; to the post-graduate schools — those institutions which, though of recent origin, have spread their influence over the entire United States; and which have eliminated the necessity for two generations of waiting and experience in order to make a doctor; which have placed competent surgeons in every city, town and hamlet; to the greater number of medical schools, and to higher standards of medical education, thus increasing facilities, and stimulating effort; to the untiring efforts of State and county and municipal societies in their endeavors to perfect organization for the protection of public health; to the loyalty and devotion of the medical press by means of which medical thought has been exchanged, investigation and research stimulated, and the relations of physicians and society made stronger.

In reviewing the science of medicine as a whole, we find that it has grown into a magnificent structure, whose base was formed centuries ago by the founders, whose superstruction has been builded by the artisans of the past century, whose adornment must be made by the artists of the twentieth century. The field for adornment is unlimited, and as it in-

creases the structure will grow in beauty and magnificence.

It may be asked when will these structures have been completed? The answer comes—never. So long as Nature holds in her bosom untold secrets, so long as scientific researches continue to be made, so long as the spirit of sympathy throbs in the human breast, so long must this structure be adorned.

It may also be asked when will progress in our medical education be completed. The answer comes, not until the structure of scientific medicine can be no longer adorned; not until our schools instead of conferring the M. D. may confer the LL. D., and the physician is no longer doctor of the laws of the science of medicine, but doctor of the laws of all science; not until Death has ceased his ravages, and man is made immortal.

Enclosed find one dollar for the BRIEF for 1905. I admire your independent journal. It looks a little like personal liberty.—W. S. HART, M. D., Bowling Green, Fla.

[Written for the MEDICAL BRIEF.]

Report of Two Abdominal Cases.

BY A. VANDER VEER, M. D.,

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Case 1.—Multilocular Cyst.—Mrs. A. B., married, housewife, aged forty-six. Family history excellent, except paternal grandfather died of cancer. Usual diseases of childhood. No history of traumatism. Bowels usually constipated. Menstruated at fourteen. She did not notice anything unusual until last January. Then observed some soreness through her abdomen, which became enlarged. More or less pain on the right side, and was troubled greatly with intestinal indigestion. She suffered with occasional chills. Enlargement of the abdomen continued; of late she has had some stomach disturbance, being unable to take her food with any comfort. Physical examination showed some fluctuation of left side, feeling of some irregularity with distinct fluctuation lower down toward the right side. Pelvic examination showed the neck of the uterus normal. Diagnosis: multilocular ovarian cyst. Immediate operation advised, because of the great distress and pressure against the diaphragm. Operation, July 23d. Median incision. On opening peritoneal cavity, a large cyst had ruptured, filling the abdominal cavity with a gelatinous-like mass of fluid, extending up behind the spleen under the diaphragm and liver. Other smaller cysts were found, and finally the tumor and cyst contents were thoroughly removed. No washing. Pelvis dried as well as possible with soft gauze sponges, and tumor found to arise from the left ovary. This together with the tube removed. Also right ovary and tube removed, as the right tube gave the appearance of a hydrosalpinx. Peritoneal toilet prepared with as much care as possible, and peritoneum closed with chromicized cat-gut No. 1, layer sutures and skin closed with chromicized cat-gut. The usual dressings applied.

This case is an unusual one, and rarely met with; the gelatinous fluid undoubtedly aseptic. In the treatment of the cavity of the peritoneum I found it far more satisfactory not to wash out, but to remove as much as possible with the hand, then dry the peritoneum, and not drain.

Case 2.—Fibroid Tumor.—Mrs. B., aged forty-five, married, housewife. She had had usual diseases of childhood. Menstruated at fourteen. Suffered for several years from constipation. Has not menstruated since last March. Regular up to that time. A year ago last April, noticed some irritation of the bladder, with frequent desire to urinate. The movements of the bowel were flattened, and at times it was very difficult to secure a good passage. About this time she observed some enlargement of the abdomen. Suffered a good deal from headache. Complains of some difficulty in getting up and down stairs. Some swelling of the feet, and thinks she has heart trouble. Physical examination showed the heart to be in normal condition. The tumor is made out filling the pelvis, extending very low down, pressing the cervix far into the vagina, and posteriorly the mass can be felt per rectum, and extends up beyond

the reach of the finger on both sides; the pelvis seems to be blocked; there is pressure against the neck of the bladder. This condition accounted for her difficulty in getting a movement of the bowels, and irritation of the bladder. Diagnosis of fibroid tumor, possibly a dermoid cyst. Patient has had no severe hemorrhage at any time since she noticed the enlargement. Operation: median incision. Patient placed in Trendelenburg position, and with considerable difficulty the tumor was loosened from its attachment in the pelvis, adhesions were very strong, but tumor finally lifted up into the abdominal cavity. The tumor was the size of a child's head. After loosening all the adhesions, a superficial hysterectomy was done. All vessels carefully ligated, but a continuous oozing deep down in the pelvis was noted. Hot gauze sponges had good effect in controlling it, and it was not found necessary to leave in any gauze tampons. A long glass drainage tube, reaching well down into the bottom of the pelvis gave continuous drainage. Incision closed, with layer sutures of chromicized cat-gut, except at the lower point two interrupted silk sutures were placed around the glass drainage tube to hold it firmly in position. Hemorrhage was found to be somewhat profuse before she was placed in bed. The head of the bed was raised, and directions given to pack the tube every half hour. Operation complete at two P. M.; at 2.30 the drainage was found to be quite profuse; at four the patient showed some evidence of exhaustion, and her pulse became somewhat weaker. Infusion was done, one thousand two hundred cubic centimeters.

Rectal enemas of whisky and normal salt solution; hypodermatic injection, one-half grain strychnine every three hours. After this the patient rallied very satisfactorily, and at eight P. M. was in excellent condition, with good pulse, drainage very much less, perfectly conscious, expressing herself as feeling very comfortable.

The use of the drainage tube in these cases undoubtedly is of great value. The oozing usually ceases in from twelve to twenty-four hours, and the tube is removed, just leaving a strip of iodoform gauze in the tract to relieve any serous accumulation. Though not at all unusual, this case exhibited most delightfully the benefit of the Trendelenburg position. One was able to see all of the cavity of the pelvis, and note that there were no bleeding vessels; it was the oozing from the many adhesions which caused the hemorrhage. The use of the drainage tube is of great help in relieving the possibility of internal hemorrhage in these cases.

28 Eagle Street.

Enclosed find one dollar money order, for which please send me the MEDICAL BRIEF another year. I like the journal very much, and wish you continued success.—L. HAWKINS, M. D., Winchester, Okla. T.

[Written for the MEDICAL BRIEF.]

Are the Teeth of Diagnostic Value in Systemic Disease?

BY WILLIAM J. LEDERER, D. D. S.,
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New York City.

It is a well-known fact that lesions of peripheral organs can often be linked with systemic disease, and in the course of the progress of medicine many symptoms that were formerly treated as local disease, have been recognized as being produced by systemic conditions. In this progress of the recognition of disease, its symptomatology, etiology and treatment, a factor has been overlooked, or rather its various conditions and relations to systemic disease have not been allotted the prominence in symptomatology it actually deserves.

This factor is the condition of the teeth, and the relationship these organs may bear to systemic disease.

Dentistry, as an individual calling, has within the last twenty-five years made greater strides than perhaps any other branch of the art of healing, and from the mere mechanical replacing of lost organs for the sake of cosmetic effect, it has developed into dental and oral surgery, with a symptomatology and *materia medica* of its own.

From year to year less teeth are sacrificed, oral conditions are better recognized, and more successfully treated from

the oral specialist's point of view, but the actual coherence of certain dental, oral and systemic conditions has not been as fully recognized as is necessary to obtain perfect results from both the medical and dental point of view.

That the teeth are affected by systemic conditions is true, for any pathological condition that will alter the metabolism of the body is bound to bring about changes here as well as anywhere else, as the teeth are part and parcel of the human economy, and receives their blood, lymph and nerve supply from the same sources as any other part of the body. Were it not so, how can we account for the variations in the dental organs of different temperaments, as one finds variations in cranial contour, general framework, muscular development or quality of the voice. Thus the long, fine, bluish tooth is found in subjects with a prominent, not broad, but expansive chest; and the rather broad, unshapely, opaque and muddy-colored teeth in subjects with a large chest, though lacking in expansive power, showing that all factors exercising influences upon the system at large will also reflect upon the teeth.

Hutchinson long ago recognized the peculiar appearance of the teeth in inherited syphilis; and the atrophic changes affecting the teeth after diseases like typhoid, rickets, and sometimes scarlatina and measles, are also well enough known. Odontalgia in a sound tooth, as the result of some distal irritation, so often met with in pregnant women, hardly needs any mention. Still all these dental affections were at some time considered local lesions, and only in course of time was their true etiology recognized. Thus there are conditions which the dentist meets to-day, and often hopelessly tries to combat with local treatment, which undoubtedly will some day be recognized as associated with and caused by some systemic trouble. Thus pyorrhea alveolaris, Rigg's disease, is frequently met with, and very poor results obtained; in fact, at times only temporary relief is enjoyed by the patient. If this be a truly local disease, it certainly ought to yield to faithful local treatment. If all local factors are eliminated, and the disease does not abate, it is therefore a local manifestation of a systemic disease. I have frequently found it associated with diabetes mellitus, arthritis uritica, and there is no doubt but that these diseases of metabolism reflect upon the teeth in some way.

Another condition met with, such as spontaneous loosening of the teeth in subjects where senility is out of the question, what causes this? Local conditions excluded, it is no doubt caused by atrophic affection of the nervous system; some disturbance, such as one would be apt to find in tabes dorsalis, and, therefore, the question arises, is not this symptom of diagnostic value? It must be, for every effect must have a cause.

The writer is at present engaged in research bordering on these subjects, and will later publish the results obtained. There are other conditions met with in the mouth apparently of local origin, which now trace their cause to systemic derangements, and though not understood to-day, will undoubtedly, when more is known about their etiology, be recognized as buccal manifestations of systemic disease. The recognition of this will prove of benefit to all, the patient, the physician and dentist, and will serve to ameliorate pain and shorten the period of disease.

150 East Seventy-Fourth Street.

[Written for the MEDICAL BRIEF.]

Two Cases of Empyema of Gall-Bladder, With Some General Remarks on Gall-Stones.

BY HOWARD HILL, M. D.,

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Case 1.—Mrs. V. C., aged sixty-five. Seen with Dr. J. H. Laning, at St. Joseph's Hospital, January 24, 1903.

The history of this case was that on January 20th she was taken suddenly ill with pains all over the abdomen, accompanied by vomiting. At the end of twenty-four hours the pain had localized in the right iliac fossa, where the Doctor noticed a lump which seemed to him to be almost in the abdominal wall. The

patient's temperature at this time was 101° F. Her condition remained about the same for the next forty-eight hours. The tongue became exceedingly dry and brown, the pulse intermitting every three or four beats, and the patient presenting the appearance of profound illness. I saw her at five o'clock in the afternoon. Examination showed a mass in the right iliac fossa, the most prominent part of which was at McBurney's point. It shaded off in all directions from this point. It was immovable, and the abdominal wall was rigid over it. It did not quite extend to the median line, nor did it extend up to the ribs. Palpation gave a deep-seated sense of resistance, showing that there was fluid well walled off.

I concluded from the history and physical signs that we had to deal with a large periappendicular abscess, in all probability adherent to the abdominal wall. There was heard, over the whole precordial area a loud diastolic murmur. Operation was very clearly indicated, but the patient's general condition made it a somewhat hazardous undertaking.

It was pointed out to her and to her friends that on account of the cardiac lesion she might not survive the administration of the anesthetic. She and her friends decided to take the risk, however. Dr. Abram Miller was called, and gave the patient morph., one-fourth grain, ten minutes before he administered the anesthetic, which was chloroform. He put her under the anesthetic with great care, and I must say that he is deserving of the highest praise for the skill he exhibited in this case, for at no time during the operation were we annoyed by rigidity of the abdominal wall, due to insufficient anesthesia..

Operation.—A three and one-half inch incision was made through the right border of the rectus muscle, down to the peritoneum. On retracting the abdominal wall, it was seen that a mass was adherent to the peritoneum in the outer portion. To the inner side, however, the parietal peritoneum rose and fell with inspiration, showing that it was not everywhere adherent. In order to determine the nature of the mass more accurately, I made an incision through the parietal peritoneum, internal to the mass, that I might palpate it from within.

I found a mass attached to the parietal peritoneum of an area of, probably, an inch in diameter. I thought it best to separate this, and after doing so, the peritoneum was opened the full length of the incision. After separating some omental adhesions, I found the mass was a livid, distended gall-bladder of almost a plum color. There were numerous adhesions of omentum to the gall-bladder. These being separated up to the neck of the gall-bladder, it was found that the duodenum was also adherent to the side of the gall-bladder. After separating these adhesions, the gall-bladder was walled off with gauze packs, and as we had no trochar to tap the gall-bladder, the patient was turned on her side, and the gall-bladder opened with a cut of the scissors, when an enormous quantity of pus and bile-stained mucus was discharged—probably a half pint.

After removing eleven large, black, smooth, facetted stones, one was found impacted in the neck of the gall-bladder, which was dislodged and removed after considerable difficulty.

Palpation of the common, hepatic and cystic ducts showed them to be free from concretions. The opening being rather low for a cholecystostomy, a puncture of the abdominal wall was made at the point where the fundus came easily up to the parietal peritoneum, and the gall-bladder brought out at this point and fastened.

On account of the friability of the gall-bladder, it was impracticable to use a purse-string suture in fastening the drainage tube in the gall-bladder, so the gall-bladder was attached to the transversalis fascia by a few interrupted sutures, and the drainage tube surrounded by gauze was inserted into the bladder, and for fear there might be leakage into the peritoneal cavity, gauze drainage was introduced through the lower wound which was now sutured, up to the gauze drain.

The patient was put to bed in fairly good condition, after having received one and one-half pints of hot saline solution under the mammary gland. There was profuse drainage from the gall-bladder during the next forty-eight hours, but the pulse and general condition, especially the

brown, dry tongue, showed little improvement until the morning of the fourth day. On this day the pulse was 102° F., the temperature ninety-nine, the tongue moist, and the general condition good, the gall-bladder drain draining freely. From this time on, the convalescence was uneventful. The gauze drainage was gradually removed from the lower wound, which closed up nicely.

The tube was removed from the gall-bladder at the end of one week. A few days later, bile began to pass in the stools for the first time. We now strapped over the drainage opening with zinc oxide plaster, which effectually prevented any further leakage of bile.

The patient remained in the hospital four weeks, and then went home in very good condition. She made a complete recovery from the operation, and I presented her to the Academy of Medicine several months later, she being at that time in good health, except for a chronic mucous colitis.

Case 2.—Empyema of the gall-bladder, stricture of the cystic duct, septic intoxication, adhesions of duodenum, pylorus and omentum to gall-bladder, and inferior surface of the liver, large calculus in the gall-bladder, chronic dyspepsia.

Mrs. K., aged sixty-four. She has suffered from indigestion for the past twenty-five years. During this time, in addition to discomfort after eating, and inability to eat many of the ordinary articles of diet, she has suffered numerous attacks of acute indigestion, accompanied by pain in the epigastrium and vomiting. Dr. Dunham, of this city, has seen her in several. She would be confined to the house for several days. She always located the pain in the epigastrium. She has never been jaundiced.

On September 15, 1904, she again became sick. Dr. Dunham saw her this time, and prescribed for her. She was confined to her bed for several days, and had fever up to 101° F. She was weaker, and was confined to bed longer than usual. On October 1st she noticed a tumor in the right side below the costal border. Dr. Dunham saw her a day or two later, and confirmed the presence of a mass at the location of the gall-bladder, which was quite sensitive. I saw her with Dr. Dunham, on October 7th. By this time the mass extended from one inch below the costal margin downward, and inward to a point one inch below the level of the umbilicus, and one inch to the right of the median line. It was tender, elastic, and could be moved from side to side, and pushed upward. It was very evidently a distended gall-bladder.

Her temperature at this time was 101° F., therefore, in addition to a distended gall-bladder, we, in all probability, had to deal with an empyema of the gall-bladder.

On palpation of the stomach from left to right gurgling of gas occurred, showing that there were adhesions to the pylorus, with partial obstruction. It was thought that in all probability we had to deal with a stone impacted in the pelvis of the gall-bladder, causing retention of the secretions of the gall-bladder, notwithstanding she had never had any definite symptoms of gall-stones, such as colic or jaundice. We could exclude malignant obstruction, due to a growth in the pancreas by the absence of tumor, and by the history which showed clearly an acute process. There was, in addition, no appearance of cachexia.

Operation was advised, to which the patient at first declined to submit, but finding herself getting no better, she entered Agnew Hospital, on October 14th, and was prepared for operation, which was done next day.

This preparation of a patient for an abdominal operation is simplicity itself. The patient takes a hot bath, and receives two ounces of castor oil at three o'clock in the afternoon, before the operation. This effectually clears the alimentary canal, and does not abstract a large volume of water from the system, as does a saline cathartic. A point of the greatest value in abdominal work is that after castor oil purging the intestines are, as a rule, as flat as ribbons, therefore, they can be packed away from the field of operation very readily, without using undue force.

Operation.—An incison was made, one inch to the right of the median line, through the rectus muscle, and the abdomen opened. The gall-bladder presented in the incision. The pylorus and duodenum were adherent to the neck and left

side of the gall-bladder, and under surface of the liver, just internal to the neck of the gall-bladder. The omentum was adherent to the fundus. These adhesions were old, and evidently had existed for many years. They were dissected away. The gall-bladder was walled off by gauze packs, and the fundus brought out of the wound and tapped, removing six ounces of pus and mucus. The opening was enlarged and the stone removed from the neck of the gall-bladder, which was now wiped out with dry gauze. After packing the gall-bladder with gauze, the common and hepatic ducts were gone over carefully, and found free from stones. The pancreas was not enlarged, nor was it indurated.

The pyloric end of the stomach and duodenum showed no evidence of ulcer, either old or recent. On removing the packing, no bile entered the gall-bladder, so that its removal became necessary, since we know that in case of drainage of the gall-bladder where there is a stricture of the cystic duct, a permanent fistula will result, since the walls of the gall-bladder secrete about one ounce of mucus daily. This was done by Mayo's method—ligation of the artery and duct, and removal of the gall-bladder from below, upward. In this case I dissected off enough peritoneum from the gall-bladder to cover in the bed of the gall-bladder after removing it.

I tied the cystic artery where it crossed the cystic duct. I next ligated the cystic duct separately.

After removing the gall-bladder, I placed a purse-string suture around the cystic duct, and tied it, thus covering in its stump. The peritoneum was brought together by a continuous cat-gut suture. The abdomen was now sponged out, and as there was no oozing, and as I felt that the duct and cystic artery were securely closed, I closed up the wound without drainage, using cat-gut sutures for the different layers. The skin was closed by the sub-cuticular method.

The highest temperature after the operation was 100 2-5° F., which occurred on the third day. She suffered no shock, and had very little pain after the operation. I had the greatest difficulty in convincing her that she could probably digest almost any kind of food, for she had suffered so long that she had no confidence in her stomach. However, on testing different articles of diet, she found that she could digest anything she cared to eat, much to her surprise, as she had not comprehended the fact that the operation was intended to relieve her stomach symptoms.

Dr. Dunham reports that she is now able to digest anything and everything she eats, without discomfort.

These two cases show that gall-stones may exist for many years unsuspected, until one of the complications arise. In both these cases we find that they had suffered for many years with so-called indigestion, in all probability due to the adhesions which were found at the operation. Doubtless had these patients been subjected to a careful examination during the attacks of so-called acute indigestion, keeping the possibility of gall-stones in mind, it would have been noted that the upper portion of the rectus muscle was rigid, and that pressure over the gall-bladder would have increased the pain in the epigastrium.

Murphy's test is of great practical importance in the diagnosis of stones in the gall-bladder. It consists of pressing the fingers deeply under the ribs at the ninth costal cartilage, and requiring the patient to breathe deeply. When the gall-bladder descends until it strikes the fingers, a sharp pain is felt, and inspiration is suddenly arrested.

In cases of chronic indigestion, unrelieved by appropriate remedies, the possibility of gall-stones should always be kept in mind, and a physical examination should be made. It is astonishing how easy it is to make a diagnosis in some cases, once our attention is drawn to the possibility of gall-stones, even in cases that have not had colics or jaundice.

In Case 1, we have a history of gall-stone colic twenty-five years previously. I have no doubt, from the appearance of the stones, that they had been in the gall-bladder since that time, remaining dormant, and only their results, the adhesions, causing trouble with the emptying of the stomach.

At that time the diagnosis had been correctly made, but the patient had for-

gotten it when she became ill, and only remembered when told of the results of the operation.

I do not care to dwell on the diagnosis of. the typical cases, characterized by colics, scapular pain, jaundice, etc., but I do wish to draw attention to the possibilities of gall-stones, the cases cited showing that a patient may have gall-stones for years, and, finally, when old and weak, and after suffering for many years, they come to operation that is imperative, in order to save their lives. I might add here that these cases demonstrate conclusively that the operation, in good hands, even in bad cases, is not a dangerous one.

It has been shown by Mayo Robson that in cases where stones were left in the common duct at the time of operation, on account of the bad condition of the patient, injections into the fistula were inefficient. How foolish it is to expect results from medicines taken into the stomach. On the other hand, operations for removal of the stones from the gall-bladder have a mortality of less than three per cent, which includes cases of empyema. Choledochotomy, in addition, gives a mortality of about six per cent.

Mayo Robson, in his late work, gives twenty-seven complications that may result from gall-stones, the most important of which are: Empyema of the gall-bladder, as in the two cases reported; localized peritonitis with adhesions to the stomach; perforation of gall-bladder; general septic cholangitis; cancer of the liver, of which I have seen two cases this year; subphrenic abscess; chronic pancreatitis; chronic invalidism and inability to perform the ordinary duties of life, with which we are all famaliar.

How many persons, in all walks of life, fail utterly from this cause? For they are liable to be laid up just when they have important business on hand, and being unable to attend to it, someone else is called in. If the person is employed, no matter how good a man he is, someone else gets his place. If a professional man, someone else gets his professional work. If a business man, he fails because he can not give to his business the attention it deserves.

Cholecystotomy, removal of the stones and drainage, with three weeks' loss of time would cure these cases, for it has been shown that gall-stones do not recur in the gall-bladder after removal.

Coming back to the cases of empyema, it will be noted that in Case 1 I drained the gall-bladder, while in Case 2 I removed it. In case of impacted stone in the neck of the gall-bladder, or cystic duct, I do not recommend or practice removal of the gall-bladder if bile enters it after removal of the obstruction, unless its walls are very badly damaged by inflammation, for with drainage of the gall-bladder it will recover practically completely. In Case 2 I had to deal with a closure of the cystic duct. In such a case it becomes necessary to remove the gall-bladder, since if this is not done we would have a permanent mucous fistula, which will discharge from one and one-half to two ounces of mucus daily.

In conclusion, I would say that gall-stones are essentially foreign bodies that give rise to much suffering, and not a few deaths; that we are unable to say when a simple case of stone in the gall-bladder might not become lodged in the common duct, producing a condition that, if unrelieved, will lead to the death of the patient.

That many cases lead to chronic disability from interference with the stomach and duodenum, by adhesions set up as a result of local peritonitis; and that operations for stones in the gall-bladder are never followed by recurrence in the gall-bladder. Therefore, we should operate as soon as the diagnosis is made, for operations for stones are much safer, and fewer operations will have to be done on the common duct if the operations are done early, which would mean that most of the operations would have a mortality of less than three per cent, and this will ultimately be reduced, I think.

413 Rialto Building.

I have occasionally in the past read a copy of the MEDICAL BRIEF, but recently came across a copy which I found so helpful and timely that I enclose herein one dollar for a closer intimacy with your journal for 1905.—L. B. BATES, M. D., St. Matthews, S. C.

[Written for the MEDICAL BRIEF.]

Venereal Sores Clinically Considered.

BY EUGENE FULLER, M. D.,

Professor of Venereal and Genito-Urinary Surgery in the Post-Graduate Medical School and Hospital; Visiting Genito-Urinary Surgeon to the City Hospital, etc.; Author of "Diseases of the Genito-Urinary System."
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When a patient appears with a sore on the external genitals, the consultant should never jump at the conclusion that the lesion must necessarily be of a venereal nature, or if it is such that its presence bears any direct relation to a preceding sexual attack. In other words, a given lesion may be classed under one of three headings:

1. It may be the direct result of infection following sexual intercourse, in which case it is chancre or chancroid.

2. It may have occurred entirely independently of such preceding cause, or if so dependent, it may not be of an infectious nature.

3. And lastly, it may be a late syphilitic lesion, the presence of which bears no relation to any recently preceding coitus.

The first question which is usually and very properly asked of a patient with the above complaint relates to the existence of preceding sexual intercourse. If such has existed, it is of importance to ascertain just how many days have elapsed between the exposure and the discovery of the sore. If the period named be two to four days, or thereabouts, chancroid should be thought of. If it be ten or twenty days, or even longer, up to thirty, and perhaps forty days, the evidence would point toward chancre. The examiner should, however, be very careful not to be misled by the answers of the patients to his first direct questions. If a short interval be given to represent the time between the exposure and the sore, the sexual history of the individual shortly previous to the last coitus should be investigated.

As a result, it may be found that in that time coitus on numerous occasions had been practiced with the same or with various individuals. If such be the case there is, of course, no reason for supposing that the true period of incubation of the sore is as brief as was at first suspected. There seems often to be displayed an inclination on the part of patients to lay the blame for any trouble they may discover on the last person to whom they were exposed. The wrongful denial of the existence of preceding sexual exposure is rare as regards men, but somewhat frequent as concerns women. The examiner should also be careful not to be carried away with the supposition that a venereal sore exists because a patient possessed with that idea is very definite in stating the period of incubation. Many individuals after suspicious coitus become worried, and as the result of repeated examinations of their genitals, think they discover a resulting lesion, either in some congenital or long-existing blemish, or in some slight development which would otherwise have escaped notice. Where the complaint is that a genital lesion was noticed almost immediately or the next day after exposure, it is quite probable that the act itself was productive of traumatism sufficient to account for the manifestation in question.

The purpose of a second set of questions is to ascertain, if possible, the amount of pain and discomfort occasioned by the lesion. If the pain is extreme, keeping the patient awake at night, and being much aggravated as the result of bodily disturbance, the indication would point toward chancroid, while, on the other hand, if the sore be remarkably free from such characteristics, chancre would be indicated.

Although these subjective features are of value, still one should always bear in mind that chancroid may be so tolerated by a phlegmatic individual as to occasion little discomfort, and no real pain; and, on the contrary that chancre generally on the person of a sensitive or neurotic individual may be described as vividly painful. The only other question worth asking before a visual examination, relates to whether the lesion in question be single or multiple. The usual singularity of chancre and the frequent multiplicity of chancroid are points of importance.

Although the period of incubation of chancroid is usually stated to be from two to five days, it is very rare to encounter an instance in practice where it corresponds to the longer period. In most cases it is two or three days. Some au-

thorities claim that there is practically no period of incubation in this connection, the sore immediately beginning to manifest itself. When such rapidity of development seems to have occurred, it is probable that the sexual act occasioned an extensive abrasion, a sore in itself, and that the chancroidal virus implanted on the raw surface began to manifest itself before the original lesion had had a chance to heal.

With chancre the period of incubation is more variable and indefinite, although, in most instances, ten to twenty days, yet it may require thirty or somewhat more. Some authorities put the extreme limit at seventy to ninety days. I am not personally aware of having seen any instances in which I was thoroughly impressed with the fact that the true incubation corresponded to such long periods, although on several occasions patients have come to my notice stating that periods similar to these had elapsed after intercourse before a subsequent chancre had been noticed.

In such instances it should also be borne in mind that the patient may have erred either as to the date of his last sexual exposure, or in failing to detect the presence of a chancre during its early stage of development. Although most men careful of their person have their attention attracted by a chancre in its early stage of development, some do not, while those especially careless and non-observant, may, on rare occasions, harbor such a lesion through all its stages of development and recedence without knowing it. The case is somewhat different, however, with women, since a considerable percentage of them first become aware that something has gone wrong only with the advent of secondary symptoms, the fact that chancre in connection with their genitals had previously existed having wholly escaped them. This difference with respect to the sexes is not due to the fact that man is more naturally observant than woman, but to the fact that in the former sex the genitals can be seen with ease, and, as a rule, are brought into view so as to allow thorough inspection at each act of urination, while in the latter, the parts can not be individually viewed except by reflected light.

The preceding remarks apply only to genital chancres, and to instances in which the primary pathological developments have been slight. In all instances, of course, wherein the initial lesion is markedly developed, the attendant tumefaction, induration, necrosis and ulceration produce sufficient subjective sensations to attract an individual's attention in the absence of an ability to employ direct inspection.

Pain, a prominent characteristic of chancroid, renders the harboring unawares of that lesion very improbable. In fact, as a rule, a woman is especially apt to take cognizance of its existence, since the chafing to which her genitals are subjected while walking, together with the urinary dribbling to which they are particularly exposed, seem to intensify the effect of the contamination.

Although the site of chancre on the genitals may be anywhere, still certain spots are especially favorable for inoculation. In connection with the male, the majority of these are on the mucous membranous portion of the foreskin. The part of the membrane which is especially liable to tear or become abraded during coitus is that just back of the line of junction with the corona, and that covering the frænum. Former attacks of balanitis have many times left the mucous membrane thickened, inelastic, and its folds agglutinized in the first of these positions, thus causing a surface lesion as the natural result of the tension to which the part is apt to be subjected, while an entrance is being effected. The prominence of the second part exposes it especially to the action of friction.

A site perhaps next in order of frequency is along the line of junction of the cutaneous and mucous surfaces of the foreskin. In a considerable number of individuals with long foreskins, the apertures of which are narrow, the line of junction when the foreskin is retracted, and the penis erect, is rendered so taut that longitudinal splitting of its epithelial structures in numerous places is apt to occur.

The male meatus and the fossa navicularis are also unusual but important sites for both chancre and chancroid. The term urethral chancre is often employed

to designate an initial lesion so situated. No such lesion, however, the result of infection from coitus, occurs further back in the canal than the posterior margin of the fossa navicularis. If a chancre in this position be associated with marked induration, the calibre of the urethra may become so constricted that actual retention results.

The corona of the glans penis is a fairly frequent site, and so, also, is the cutaneous sheath of the organ. Less frequent positions are other portions of the glans, at the meatus, in the fossa navicularis, on the hairy abdominal surface about the root of the penis, and on the anterior portion of the scrotum.

As from the foregoing description it is seen that the majority of chancres occur in connection with the foreskin, the prophylactic value of circumcision is evident. In connection with the female genitals, chancre, if the subject be unaccustomed to coitus, is most frequent in the region of the hymen, and at the fourchette. In these, however, as well as in other subjects of a similar sex, both labia, the space between them, the vestibule, the meatus and the region of the clitoris are also frequent sites. Chancre on the mons veneris, and on the cutaneous surface, just beyond the labia majora, is rare. So, also, is chancre on the walls of the vagina, owing to the firm character of the epithelium covering that part, and also to the lubricated state of its surface. Chancre on the os uteri is very rare, and it might be said to be confined to those in whom that part has been lacerated and secondarily eroded as the result of childbirth, abortion or instrumentation.

Extra-genital chancres may be subdivided into two classes, those resulting from irregularities in connection with the sexual act, and those which bear no relation to that act. Practically all chancres at, about, and just within the rectum, result from inoculations which have occurred when that orifice has been made to play the part of the vagina. Such lesions are seen most frequently in the cases of boys and young adult males. Their occurrence in women is not, however, especially unusual. Although a surgeon might easily go a lifetime without encountering chancre in connection with the rectum, it is not difficult to find examples of such lesions, if one will only investigate, in countries where sodomy is common, or where males, usually of the lower strata, are for long periods crowded rather indiscriminately together.

Chancre connected with the fauces, tonsils, tongue, palate, the mucous surfaces of the cheeks, and the lips, can also result from irregularities in the sexual act. There is this important distinction, however, between chancres in these latter positions and those about the rectum, and that is that a large percentage of the former, and especially of such as are situated on the lips, bear no relation to any antecedent irregularity in the sexual act itself, but are directly due to kissing between the sexes, amorousness causing the act to be prolonged and violent.

Extra-genital chancres which bear no relation to an antecedent sexual act may occur on any portion of the body. The female nipple is not an unusual place, a syphilitic baby infecting its wet nurse; *vice versa*, a syphilitic wet nurse may infect the nursing baby on its lips, tongue or gums. The hands of surgeons, as the result of digital examinations in gynecological practice not infrequently become inoculated, provided they are exposed when the seat of abrasions, chaps, hangnails, etc. If a person with a chapped lip drinks out of a vessel without cleaning it immediately after one whose mouth is contaminated chancre may result. Dentists who do not clean their instruments after using may cause infection. A considerable number of such cases have been reported. Surgeons who are similarly careless may and do spread infection. The popular practice of sucking fresh wounds to supposedly avoid subsequent inflammation may affect a like result. A case recently came to my notice where a chancre on the bridge of the nose was the direct result of an attempt to suck away some granules of powder which had become lodged under the skin in that part. Abrasions received while in the hands of the barber may become infected.

Not long since, a gentleman reported with a chancre on the cheek, the sore being grafted on a little mole, the top of which had been removed by the razor.

The various sources of infection in connection with extra-genital chancre, and the positions assumed by the lesions, are varied in the extreme. The detailed recital of such histories generally appeals to the popular fancy. Syphilis in the innocent is a somewhat sensational manner of alluding to the disease in this class of subjects. It seems unnecessary, however, in this connection to treat the subject in a special detail. Extra-genital chancres, especially when those on the lips and mouth, the result of kissing, are excluded, represent a very small proportion of the entire number of infections. It is true, however, that a considerable number of the cases of syphilis which have been acquired without arousing the suspicions of the afflicted belong to that category.

The primary occurrence of chancroid extra-genitally is rare, and when it does exist it is usually at or about the rectum, the direct result of infection in connection with an irregular practice of the sexual act. Chancroid, the result of auto-inoculation or reinfection, is of comparatively common extra-genital occurrence. In women it shows a marked tendency to extend from the genitals back about the rectum or onto the buttocks, while in both sexes the inner surfaces of the thighs, the inguinal region and the hypogastrium are frequently so invaded. With the male extension from the penis on to the scrotum is not unusual, while in exceptional cases a still further dissemination of the disease from the scrotum on to or about the rectum is observed.

Although the lesions on the genitals which bear no relation whatsoever to a preceding contamination from sexual intercourse are numerous, still certain of them occur with a fair degree of frequency, and can be classed under two headings, first those having no relation to a preceding sexual act, and, second, those directly so dependent. Under the first heading can be grouped herpes progenitalis, balanitis, inflammation of sebaceous follicles and cysts, eczemas, and other general cutaneous eruptions, warts and vegetations, cutaneous thickenings in connection with the glans, stings of parasites and insects, scabies, suppuration in connection with the glands of Littre, traumatisms variously caused, and malignancy.

Under the second heading are placed traumatisms caused by coitus itself, namely, tears, abrasions, sub-cutaneous hemorrhage, and serous extravasations. Secondary and late syphilis of the genitals belong to another group, these lesions bearing an indirect relation in most instances to some preceding sexual act. To this group might perhaps be added the interesting lesion peculiar to women which older writers have spoken of as lupus of the vulva, and which others more recently have called chronic chancroid, both of which diagnoses I am inclined to doubt. The last two divisions can not be spoken of as groups, since they each consist of one definite lesion, namely, chancre and chancroid.

Herpes progenitalis is a lesion exactly analogous to herpes labialis, and is dependent for its being on a localized neurosis or neuritis. It first manifests itself as several, generally about half a dozen or so, little punctate red blotches, closely clustered over an area about the size of a split pea. If the lesion, as is usually the case, develops still further, a vesicle forms over each punctate red spot. If these vesicles are not disturbed, they either shortly disappear from a reabsorption of their contents, or a change taking place therein, they are transformed into pustules. In most instances, however, the thin epithelial covering to those fluid collections ruptures, leaving an abraded area over which a crust tends to form. Very frequently the epithelium between such areas desquamates, the result being a confluent ulcerated surface. These lesions are usually situated on the mucous cutaneous surface of the foreskin. Less frequently on the penile sheath, and rather rarely on the glans. Certain individuals are peculiarly prone to recurring outbursts of herpes. Where the lesion exists in its natural state, the characteristics just described are usually sufficiently marked to enable an examiner to make a correct diagnosis. Where, however, a confluent ulcer has resulted, it may be impossible, from a single observation to exclude a venereal lesion.

Not infrequently an inexperienced examiner mistaking herpes for chancroid, or

possibly for chancre, applies a caustic, the result being a destruction of all herpetic evidences, together with the formation of a somewhat deep ulcer, the edges of which are so infiltrated and inflamed, that it may be, and often is, impossible for any one subsequently examining the case not only to tell what the original trouble was, but also to exclude chancre or chancroid without keeping the case under observation for a period.

If such be done it will be seen that the lesion tends to heal promptly and naturally, without leaving any undue induration at its base. If a person subject to herpes indulges himself somewhat indiscriminately sexually, he runs an extra risk of becoming infected, since the braded surface accompanying the lesion renders the conditions governing inoculation most favorable.

Accordingly, if a patient presents himself with a lesion distinctly herpetic, and with the story also that he has recently indulged in suspicious coitus, it is always well before dismissing him with the assurance that everything is all right, to keep him sufficiently long under observation to make it certain that a venereal sore does not appear at the site of the original lesion.

Herpes, if non-irritated, causes so little pain or discomfort, that it is apt to be disregarded by the patient, provided no antecedent suspicious intercourse has occurred, and there is consequently no fear aroused that the appearance presented ushers in the beginning of resulting trouble. Curiously enough, herpes frequently occur in those subject to it after a suspicious coitus. I have in mind the case of a gentleman usually quiet and domestic, who is never so affected except after such times. It is probable that over-indulgence, associated with alcoholic stimulation are factors which favor the development of the lesion, and so account for its frequent appearance after a sexual debauch. Unless herpes has become secondarily inflamed to a marked degree, it is associated with no lymphatic involvement or induration of the surrounding tissues.

Balanitis or inflammation of the mucous membranous surface of the prepuce and glans penis, when of a grade severe enough to cause acute epithelial desquamation and surface ulceration may closely resemble a venereal sore. If a marked degree of balanitis exists in connection with a long prepuce, or with one the orifice of which is narrow and unyielding, the element of traumatism to which the inflamed part is subjected during an act of coitus, so increases the lesion that the prepuce often becomes red, edematous and inflamed to such a degree that retraction is rendered difficult or impossible, while at the same time a free purulent excretion arises from the involved mucous surface. If this condition be left for a short time uncleansed by washes and antiseptics, and still further irritated by contact with decomposed urine and sebaceous secretion, extensive ulcerations, surrounded by marked inflammatoroy infiltration result. When such a condition exists, palpation of the cutaneous surface of the prepuce with the thumb and forefinger reveals the indurated condition of the underlying mucous structures.

Although it is often, at first sight, impossible to exclude a venereal sore in the diagnostic investigation of a case of this description, still the rapid manner in which an amelioration of inflammation follows through sub-preputial douching with mild antiseptics in case there is no venereal complication, is generally sufficiently marked to be of diagnostic value. If the phimosis in such a case is not enough to prevent a retraction of the prepuce, then an exposure of the mucous surface, if no venereal infection exists, and the lesion is simple in character, is apt to show a rather general and uniform inflammatory involvement of the part. Not infrequently acute gonorrhea occurring in one with a narrow preputial orifice may excite an acute balanitis, surrounded by sufficient inflammatory infiltration to make it at first probable to the outside feel that the urethral inflammation is complicated by a venereal sore.

The cutaneous sheath of the penis, especially the under portion, together with the surface of the scrotum, contain numerous sebaceous follicles, which can be at all times readily made prominent if the parts are put somewhat on the stretch. If suppuration occurs in connection with one of these, a little deep-seated,

purulent focus with a red periphery results, which not infrequently causes an individual, especially if some time previously he has had a suspicious intercourse, to seek advice, fearing that he has become contaminated. The subcutaneous origin of a lesion of this description ought to make it evident to an examiner that it is not a venereal sore, while its exact nature can be easily seen by freely incising its little indurated area, as it is held in the grasp of the thumb and forefinger, thus allowing to escape the sebaceous contents. If instead of an inflamed follicle there be an inflamed sebaceous cyst, then the same remarks as the preceding apply; only in the latter instance, the greater collection of sebaceous material ought to facilitate the making of a correct diagnosis.

Little special need be said regarding the occasional appearance of eczema, and the general cutaneous eruptions on the genitals, since there, as elsewhere, such lesions are to be diagnosed by their distinguishing characteristics. A careful inspection of the part ought to enable the examiner to distinguish the true nature of the other lesions mentioned in the first heading, and to definitely decide that they are not venereal in origin except, perhaps, in certain instances of primary malignancy. Epithelioma, commencing in the glans penis or the prepuce, may so closely resemble chancre that a true differential diagnosis can not be made without resort to a histological examination, although the fact that a suspicious lesion does not tend to rapidly resolve itself under the influence of mercury locally or systematically applied, would tend very strongly to support a diagnosis of malignancy.

The tendency shown by scabies to affect the penis, and especially the glans, not infrequently causes the person afflicted to fear venereal contagion. The resulting lesions may also be somewhat indurated if they have occasioned much scratching. The fact, however, that other portions of the body are similarly affected, that the lesions are associated with a marked itching sensation, and that those on the penis are multiple, ill-defined, and show little tendency to ulceration ought to determine the diagnosis.

Careful inspection would serve to distinguish a traumatism, the direct result of coitus, from a venereal sore. As, however, the occurrence of a traumatism would aid the accomplishment of infection provided the opposite party were contagious; it is always well for the surgeon on giving his opinion in a case of that nature to make it plain to the patient that such a contingency may result.

Mucous patches on the glans and preputial mucous surface, especially when inflamed by contact with decomposing urine may bear a resemblance to chancre. In this connection it should always be borne in mind that it is not infrequent for secondary evidences to manifest themselves at the site of the chancre, a partial recrudescence of the initial induration, perhaps, returning, together with the mucous patch. The history of the case, together with the co-existence of secondary evidences elsewhere, ought to enable the examiner to arrive at a correct conclusion. Gumma of the penis or vulva is especially apt to be mistaken for phagedenic chancroid, to which it bears a very close resemblance. Its chief distinguishing characteristics are that it begins insidiously, and without reference to any immediately preceding suspicious intercourse, it is accompanied by little or no pain, and by no circumscribed lymphangitis, unless the latter condition has been provoked by faulty methods of treatment. If such a lesion be mistaken for chancroid, and caustic applications prescribed, it will rapidly extend itself, and the appearance of phagedenia will become more marked.

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I am well pleased with the MEDICAL BRIEF. I like it for its independence. I have been practicing medicine for forty-eight years and admire the BRIEF more than all others. Enclosed you will find one dollar to continue my subscription to your most valuable journal for 1905.—W. S. EDWARDS, M. D., Siler City, N. C.

[Written for the MEDICAL BRIEF.]

The Treatment of Eczema.

BY HARRY TYLDESLEY, M. D.,

Member Kentucky State Medical Society; Member of Muhlenberg County Medical Society; Assistant Surgeon Illinois Central Railroad Etc. Central City, Ky.

Eczema is a noncontagious, inflammatory disease of the skin. It is seen both as an acute and chronic affection, but most cases that are met in practice will give a history of greater or less chronicity. Jackson correctly declares that eczema is a most protean disease. This statement is based on the great variety of forms which eczema assumes. But if one will bear in mind the striking symptoms of the disease, he will have no difficulty in making a diagnosis. There are six symptoms which characterize eczema. These are: redness, itching, infiltration, tendency to moisture, crusting or scaling, and cracking of the skin. Three to five of these symptoms will be found in every case, and in most instances all of them are present. The disease has no particular season of the year as a favored time for its visitation, and all parts of the skin are invaded by it, but it more commonly selects the face, the scalp or the flexures of the joints. The sulcus behind the ear has seemed to me to be a favorite site for it in infants and children. Eczema arises from local causes, but the existence of the disease is a manifest indication of some blood dyscrasia. That this is true, we have only to call to mind any case and analyze it. A woman will say that she washed her clothes and the soap irritated her hands, and the eczema appeared. But, if her blood had been normal, she would have gone along without the eczema, as she had done before. The soap only now had caused the irritation. In France this view has long dominated the thought of dermatologists, and in the United States we have some of the ablest clinicians who hold the same opinion. The treatment of eczema must therefore be local and constitutional. Every case must be carefully studied with the view of eliciting all the elements that require therapeutic attention. In beginning with a case of eczema it is necessary to give the patient exemption from the intense itching that is present in all cases. In fact, the average patient will not remain loyal if this distressing factor is not given a quietus. Local and constitutional treatment are to be instituted as soon as the case is taken in hand. For some time I have used ecthol in the treatment of eczema, and it has brought me a larger degree of success than I have been able to attain by any other means. Ecthol corrects more readily the dyscrasia of the blood than any other agent that can be found in eczema. I first used it in treatment of small-pox cases that I had on hand last year. It appeared to me that, as ecthol rendered small-pox mild, that it would perhaps correct the dyscrasia that was present in patients with eczema. I tried it and found it very valuable. I give ecthol in doses of a teaspoonful every three hours and continue it until the patient is well. But the internal use of ecthol in nowise completes the treatment. It must also be used locally. It has proved very valuable in quieting the itching, which is so very distressing. I have patients bathe the ecematous patches with ecthol every four or six hours, according to the severity of the itching. I instruct the patient to apply the remedy freely, soaking slowly the entire diseased surface. The ecthol exerts an antiphlogistic and antipruritic effect that is gratifying to the patient, and which expedites resolution. The treatment of the disease in this way has proven so successful that I now rely upon it, to the exclusion of all other means of treatment.

Miss W., aged eleven years, residing at Mercer's Station, Ky., was brought to me for treatment of eczema which involved her arms—the flexures of the joints. She had suffered such great distress from the itching that she had almost torn the flesh by scratching. I put her on ecthol in doses of a teaspoonful every three hours, and used it locally, according to the plan already given. I applied a bandage over the eczematous patches, a practice I invariably carry out, as it protects the diseased parts from irritation, dirt, air, etc. This patient made a rapid recovery, being well in two weeks from the time she began the treatment.

Mr. T. T., twenty-five, had eczema which involved the legs and arms and gave him

so much distress and inconvenience that he was not able to attend to his business. He was put on ecthol in doses of a teaspoonful every three hours, and the same remedy was applied locally. In ten days this patient had no further attacks of itching and the local lesions were healed. He was told to continue with ecthol for ten days longer, however.

C. W., aged eleven, had eczema on his hands. This annoyed him so much that he could not handle his school books without pain, and his school-fellows avoided him, thinking he had the itch. Ecthol, used internally and locally, acted promptly, and in two weeks my patient was able to go back to school without any marks of the disease which had been so troublesome.

Mr. E. B., aged thirty, had eczema on arms, hands and chest and was an intense sufferer. I put him on the treatment, a teaspoonful of ecthol every three hours, and the same remedy applied locally every four hours. This treatment was satisfactory to the patient, and the disease speedily disappeared. He was fully well in three weeks after he began the treatment.

[Written for the MEDICAL BRIEF.]

Prognosis in Sterility.

BY HENRY C. COE, M. D.,

Professor of Gynecology in the New York University and Bellevue Hospital Medical College. New York City.

Some apology is necessary for introducing a subject of which so much has been written that it would seem to have been worn threadbare. My excuse is that it is one that has always been of vital interest to the profession, and will continue to be a burning question until the end of time. Its importance is attested by the flood of literature that has been poured out—monographs, extended chapters in text books, journal articles, society discussions; in fact, every gynecologist has had something to say about the "cure of sterility."

It must be confessed that in spite of the efforts to throw light upon this subject through studies in the physiology and pathology of ovulation and menstruation, assisted by observations in the laboratory and at the operating table, our knowledge of the more hidden causes of sterility is still elementary.

The family physician, wearied by the importunities of young married women, who seek to know the reason why they are childless, refers them to the gynecologist, with the hope that the latter will be able to discover some explanation that has eluded him. Too often the specialist is obliged to acknowledge frankly his own limited knowledge, or, if less candid, suggests possible causes and remedies with a confidence which he is very far from feeling. I have been led into this train of thought by my experience during the past few months, when it has seemed as if hardly a week had passed without my being questioned by some woman who desired an opinion upon this subject: why she had never conceived, and could anything be done to secure the desired result. There was nothing especially interesting about any of these cases; they are sufficiently familiar to us all, yet, taken as a whole, they furnished me with a forcible commentary on the limitations of modern science, and of gynecology in particular.

The results of my examinations were various. In some cases I could find absolutely nothing to account for the sterility, in others I suspected some hidden cause. In a few, the prognosis was absolutely bad, in others more encouraging. In a few I could hold out some hope from operative procedures, or, again, the same operations had already been performed without results. With few exceptions there were more or less marked pelvic symptoms, as constant pain or dysmenorrhea. The periods of sterility varied from one to ten years, or the patient had aborted after marriage, and had not conceived since. Examples of "one-child" sterility were not wanting.

In no class of cases have I found women more desirous of a dogmatic opinion, or more willing to grasp at any prospect of cure by operation. I know of no stronger temptation which besets a gynecologist

than that to yield to the patient's importunity, even against his better judgment. Early in his practice, fresh from lectures and text-books, a man is apt to be quite enthusiastic about the treatment of these cases. Most of you recall as students the vivid word-pictures of Thomas, from which we gained the idea that incision of the cervix and the insertion of the intra-uterine stem was a sure cure for dysmenorrhea and sterility. This was in a line with the teaching of Sims, whose classic on "Uterine Surgery" exerted such a powerful influence on succeeding teachers and surgeons, an influence which is still felt, as shown by the general belief in the purely mechanical theory of sterility.

It is a curious fact that while gynecology has made such strides in other directions, especially in abdominal surgery, we still keep uppermost in our minds the idea that cervical stenosis is the main cause, forgetting the more important conditions within the abdomen. We still dilate, incise, insert stems, straighten the uterus, and have a complacent feeling that we have met all the indications. Is this crude treatment in a line with modern scientific researches?

The proper investigation of a case of sterility is no light task. We must divest ourselves of personal prejudices, and endeavor to be absolutely unbiased by the opinions of previous consultants. Let us take the most difficult example first. A young woman is referred to us who has been married, say five or six years, and has never conceived. To our first question she replies that she has always been well, and can not recall any pelvic trouble aside from moderate dysmenorrhea. Her periods have been regular, and marriage has not brought any new pains or troubles. Her husband is healthy, marital relations are satisfactory, or at least painless, and her own health is perfect. Her only complaint is sterility. More direct questioning reveals new facts, unimportant to her, but not to the examiner. She is led to recall some passing indisposition soon after marriage—a slight attack of abdominal pain and tenderness, perhaps at the time of menstruation, confining her to her bed for a few days, usually diagnosed as "congestion of the ovaries." She may have missed a period and then flowed profusely, or possibly had a vaginitis more or less severe, and attributed to "cold" or sexual excess; or, during the first year or two after marriage various methods were adopted to prevent conception. The result of the examination is negative, perhaps a slight anteflexion, or an undeveloped cervix being found, a moderate leucorrhea, but no tenderness on palpation over the uterus or adnexa.

With a proper regard for the natural delicacy of the patient, we ask for an interview with the husband, and are more searching with our questions, going into his own history *ab initio*.

We may assume that his earnest co-operation is obtained, and that he conceals nothing (there are such cases). He can remember no so-called "youthful indiscretions," and is perfectly capable sexually. A further test is the examination of his semen. This, by the way, is seldom done in this country, in spite of the recommendation in every text-book. We are more squeamish than foreign patients and physicians. Curious facts are often noted in this connection. On several occasions I have found complete azoöspermia in the husband, when I was about to dilate the wife's cervix for the cure of sterility. Doubtless there are many cases in which the unfortunate wife is made to suffer for the sins (or misfortunes) of her partner. This is a disagreeable subject for investigation, but surely it is quite as legitimate as the examination of any other secretion, or excretion, of the body.

In the face of this negative evidence we would seem to be justified in regarding the case as one in which there was a want of so-called "mutual adaptation," and may dismiss the patient with the rather doubtful consolation that time may yet bring about the desired result. This may satisfy some women, but after several months of fruitless endeavor, they return for more information. Although there is no satisfactory evidence that the endometrium is diseased, we can find no other explanation for the sterility, and suggest curettement, which is readily acceded to. The curette removes, perhaps, a few granulations, but not enough to justify the diagnosis of hyperplastic endometritis. Under these conditions, in my

opinion, the prognosis is uncertain. I have been waiting several years for results in two or three such cases.

Far more common is the class in which we are led to infer from the history that in consequence of early sexual excess the prevention of conception, or a mild grade of gonorrheal infection, the endometrium is in such an unhealthy state that conception does not occur, or if it does, the ovum is cast off in a few days. I believe that many women who give a history of menstrual irregularities really conceive, and abort a week or two after the expected period. They usually present the ordinary symptoms of endometritis, profuse leucorrhea, so-called "congestive" dysmenorrhea and menorrhagia. Frequent or excessive intercourse at the time of the period is undoubtedly a potent factor in causing the accident. Here curettement offers a fair prospect of cure, or at least renders conception much more probable, especially if the patient is separated from her husband for a time, and matrimonial relations are properly regulated.

When there is an obscure history of latent gonorrheal or mild septic infection following an early abortion (spontaneous or induced) the prognosis must always be somewhat doubtful, as there is a possibility that the distal ends of the tubes may be occluded, though there may be no symptoms or signs leading one to suspect this. We so often find this condition (in fact extensive pelvic adhesions) on opening the abdomen, that we can place little dependence on the clinical history as an aid to diagnosis.

Sims laid a good deal of stress upon the presence of an acid discharge from the uterus as a bar to impregnation. Experience has shown that it is not the discharge, but the diseased condition of the endometrium, which is the real obstacle. The mere presence of a plug of thick mucus in the cervix certainly does not justify one in deciding that this is sufficient to prevent conception. When we recall the frequency with which women conceive with advanced carcinoma and extensive erosions of the cervix, we can not regard a cervical discharge as so important.

An interesting class of cases, of which I have seen half a dozen examples within the past two years, includes women between twenty-five and thirty-five, without any history or symptoms of pelvic disease, who have remained sterile for several years, although menstruating regularly and without pain. They state that during the past year or two they have increased rapidly in weight, and at the same time the menstrual flow has become scanty and irregular, sometimes ceasing entirely, yet without the ordinary disturbances attending the climacteric. The direct relation between ovarian activity and the processes of nutrition has been repeatedly demonstrated, experimentally as well as surgically. The increase in adipose after the normal and artificial menopause is sufficiently familiar. While there is undoubtedly marked diminution of the functional activity of the glands in these cases, we can not infer that ovulation ceases because there is no menstrual flow. Experience has shown that when these patients succeed in reducing their weight, say thirty or forty pounds, the flow often returns. One woman told me that she menstruated regularly, and even profusely when undergoing treatment at Marienbad, but since she returned her menses have not reappeared, while she has regained her former unwieldly bulk. In another case the patient menstruated only three or four times a year, but under the rigid diet and hard training which she has since pursued she had been regular for three years.

I have never found that drugs, local faradism or galvanism, or treatment applied to the interior of the uterus does the least good in these cases. Reduction of weight offers the only prospect of relief. Certainly any operative procedures would be worse than useless. I have not had such results from the use of thyroid or ovarian extract as have been anticipated. The prognosis as regards the cure of sterility in such cases is naturally unfavorable, and one must need be cautious about promising such a result, even if the periods return with more or less regularity.

True cases of premature menopause undoubtedly occur, though some writers are skeptical with regard to their physiological character, believing that they are

really instances of premature atrophy of the uterus. I recall three in women under twenty-eight, all of whom became enormously stout within a few months. The menstrual nisus was entirely absent and there were no pelvic symptoms. Their uteri were not atrophied. Prolonged treatment, reduction of weight (thyroid was persistently used for months in one instance) were entirely without results.

In one instance I had an opportunity to study the condition of the ovaries. The patient, aged thirty-five, had been married five years, and had never conceived. During that period she had "suffered many things of many physicians"—repeated curettements, local treatment under different specialists, electricity, treatment at foreign spas, etc. Her periods had entirely ceased two years before, without distinct climacteric symptoms except increased adipose. She was exceedingly neurotic, and had always suffered from vaginismus and persistent pain in the left side, extending over a period of fourteen years. There was an obscure history of recurrent attacks of pelvic peritonitis. I examined her under ether with her physician, who had assisted at five or six similar *séances*, obtaining as many different opinions. By recto-abdominal palpation, I was able to map out easily an atrophied uterus not larger than my thumb. The ovaries could not be felt. I gave it as my opinion that the pain was probably due to old adhesions, and advised an explorative incision.

After my examination I was told that my opinion coincided with that of another gynecologist. One gentleman had said that there was nothing the matter with the patient, and an eminent specialist had guaranteed that he could cause a return of the menses by dilating the cervix and making applications to the interior of the uterus. After much further discussion, the abdomen was opened, and extensive intestinal adhesions were found on the left side, as was prophesied. The ovaries and uterus were completely atrophied, corresponding in appearance to the organs in an old woman. The folly of promising a return of ovulation and menstruation under such conditions was self-evident.

It may be stated in general that neither scanty, nor profuse, menstruation in itself is necessarily an unfavorable element in prognosis, provided that the patient has always possessed this peculiarity, and that they do not result from any pathological condition. Should they develop after marriage, in consequence of some attack of inflammation, the prognosis would depend upon the severity of the local lesion and the possibility of curing it.

(To be continued.)

I have been reading the BRIEF most of the time for thirty years and do not want to be without it, believing it to be one of, if not the best, journals printed for the money. Enclosed find one dollar for the BRIEF.—A. L. WEBB, M. D., BOX, Ala.

[Written for the MEDICAL BRIEF.]

Can Catarrh Be Cured.

BY CLARENCE C. RICE, M. D.,

Professor of Diseases of the Nose and Throat, New York Post-Graduate Medical School and Hospital; Consulting Surgeon in Throat Diseases to the Out-Door Department, Bellevue Hospital; Visiting Physician New York Infant Asylum; Laryngologist to the Montefiore Home; Fellow of the Academy of Medicine; Member of the New York County Medical Society, State Medical Society, Pathological Society, American Laryngological Association, Etc., Etc. New York City.

The nose and throat specialist, as well as the general practitioner, is still being asked this question by patients in all conditions of life. The older specialists can distinctly remember the dread with which they considered a proper reply to such a question. The conscientious physician was very much opposed to giving a decidedly affirmative answer, because frequently recurring coryzas always delayed the success of nose and throat treatment; nor was he willing to state that he was unable to treat successfully catarrhal cases, because he felt that it was obligatory upon him to do so, and he was confident that the ttime was fast approaching when a better knowledge of the pathology of nose and throat diseases would suggest the proper methods of treatment which

would surely relieve the troublesome symptoms which accompany the different varieties of nasal disorders.

A "cold in the head" very closely resembles the active symptoms of catarrh, and the old method of treating nasal catarrhs, by washing the nose with an alkaline spray, and following this with an application of some form of an astringent applied by atomizer or applicator was pretty promptly followed by an acute coryza, which aggravated rather than lessened the catarrhal symptoms, and baffled all the attempts of the physician to "cure" his catarrhal patient.

We may say, in a very general way, that nasal catarrhs may be divided into two classes. The hypertrophic moist variety, characterized by swellings and enlargements of the soft tissues and cartilaginous and bony prominences and spurs of the hard tissues; and the other large class known as the atrophic or dry variety of nasal catarrh, presenting many degrees of shrinkage of the tissues and dryness of the mucous membrane.

Colds in the head are the great cause of the hypertrophic or moist variety, therefore, if "colds in the head," or more properly speaking, acute coryzas, can be prevented by placing the nose and, perhaps the whole general economy of the patient in proper condition, then it is fair to assume that catarrhal swellings and hypersecretion can be gradually diminished and controlled until the patient is no longer susceptible to colds. The successful proposition is, therefore, to put the nasal passages in such condition that they are no longer susceptible to acute catarrhal inflammations. The patient being immune to the agents which produce acute catarrhal symptoms, his chronic catarrh will permanently disappear.

This leads us to consider the abnormal or pathological conditions of the nose, which predispose to acute colds or coryzas.

1. We may state that the nasal mucous membrane of neurasthenic, anemic people is much more sensitive to external irritants than that of vigorous robust patients. Sudden change of temperature, the chilling of the body, wetting the feet, exposure to dust and dirt, acute indigestion, will, in these sensitive people, produce an acute coryza, because the mucous membrane is so hyperesthetic, whereas, in stronger people, the same conditions may have no effect whatever.

Can catarrh be cured in what we may style the catarrhal class of patients? Yes. By rectifying two conditions.

1. Improving the general condition of the patient.

2. Rendering the nose immune to external irritants.

We will now consider the general treatment of the patient, as the administration of tonics, electricity, cold baths, general massage and vibratory massage of the nose, although we consider these most important, and do not advise local treatment of the nasal passages without such proper attention to the general health.

Before stating the agents which will shrink or destroy any portion of the tissues of the nose, we wish to say that they should be applied only by the skilled physician, who understands, too, the possibility of converting by over-treatment a hypertrophic or moist catarrh into that form which is more troublesome to the patient, and much more difficult of cure, viz., the atrophic variety. In the hands of the skilled physician, sensitiveness of the nasal mucous membrane can be very much diminished, and soft enlargements reduced by the application of some form of mineral acid. It is much better to apply the acid over a too limited rather than too great surface, and at too little rather than at too great depth. It is wise to wait several weeks after an application of chromic acid to the turbinated tissues, to determine whether the application has fully accomplished its object, viz., the contraction of the swellings, the lessening of the sensitiveness, and the diminution of secretions. There is a nice point of balance between the curing of a moist catarrh, and the causing of a dry one, which the expert rhinologist learns only after years of experience. Chromic acid fused on an applicator should be pushed into the hypertrophy at one small point, and not allowed to destroy the mucous covering.

There are other methods of reducing hypertrophic swellings in the nose, and removing nasal sensitiveness than by the application of acids. A large inferior tur-

binated swelling will sometimes invite the puncture of a hot electric needle, or the sharp points of scissors may be used to partially destroy the blood supply. In all these procedures the mucous membrane should be destroyed as little as possible. The fine electric needle should be nicely inserted at a red heat, and the scissors not to remove tissue, but to scarify. The object is to diminish the blood supply in the over-congested parts, and to reduce the nerve supply in the over-sensitive tissues without injuring the moisture producing membrane. It is our habit to protect all operative wounds in the nose with compound stearate of zinc and boric acid.

We must very briefly state, in closing, that bony and cartilaginous spurs on the nasal partition, deviations of the nasal septum, nasal polypi, and enlarged middle turbinated tissues are pathological conditions which often accompany the hypertrophic or moist variety of catarrh, and all these should be removed by saw, knife, scissors or cautery in a manner which will best conserve proper nasal function.

Put the nose in such a condition that the patient will no longer be susceptible to "colds in the head," and the nose and throat specialist can confidently answer yes, when the patient, annoyed by an hypertrophic rhinitis, asks if his catarrh can be cured.

In the next short paper the treatment of atrophic rhinitis will be briefly considered.

123 East Nineteenth Street.

[Written for the MEDICAL BRIEF.]

Infantile Hygiene.

BY WALTER M. FLEMING, A. M., M. D.,

Member of New York County Medical Society, Medico-Legal Society, Physicians' Mutual Aid Association; Qualified Examiner in Insanity and Nervous Diseases in Superior Court, City of New York. New York City.

(Continued Series.)

In regard to the infantile contingent, it is an undebatable fact that as it ages and grows and emerges from its mother's breast, and artificial feeding is inaugurated, the responsibility and duties of its sponsor increase, rather than diminish, as is frequently supposed to be the case. The inexperienced mother is often too prone to conclude that with the weaning of the infant her constant care and attention to the little one is not now incumbent upon her, and to a great extent can be dispensed with, and the chief part of the irksome requirements heretofore devolving upon her may now be relegated to another—a self-constituted nurse, a servant or some member of the household willing to assume the task. This is often found to be a grave error, and one which might mar the entire nature, and, in short, the temperament and well-being of the dependent little one. For this is the time for the proper care and guidance, to shape its nature and temperament, and plant the seed of a good and amiable disposition, which if carefully observed will ultimately arrive at its fruition, and will reflect both honor and appreciation upon the mother as well as her subordinate, or whosoever may fulfill the requirement under her direct guidance and instruction. The early treatment, guidance and care of the mother is the great factor in the rearing of the child. Upon her devolves the responsibility of the goodness, the amiability and the little care he is to those upon whom the guidance belongs.

It will be found far easier to begin with the right course and tutorage early in the regime to be observed than to defer it until too late, or perhaps to be compelled to undo, questionable training, that has already taken root in the young idea. It takes but a very short time to humor and spoil a child, just as it begins to comprehend that boisterous demands are promptly responded to. It is certainly quite natural for the fond mother to let the little one's weaknesses and demands work upon her sympathies, until over-indulgence sets the pace for future exactions, which are often inconsistent and unnecessary, and with progressing age and indulgence the babe often gets control, exacts all demands and not infrequently has to suffer later on for what should have been impressed upon the little comprehension earlier as wrong.

Thus the child, neglected or improperly guided, learns to have its own way, doing precisely what he was indulged in before,

or taught to do. The proper and the only true course to pursue is to begin early, and by patience and careful training develop in the little dependent good habits, obedience and amiability of temperament. Primarily, the natural guide and tutor is the mother; with her rests the results of the early training.

Regularity of feeding and sleeping and, in short, all of the functions of life. It is only necessary to exercise a little good judgment and avoid over-indulgence. A child is readily taught the proper time for its supply of food and the time to retire as well as the time for amusement and exercise. A little care and attention soon develops obedience and amiability of temperament.

If the little one is given over to the care and guidance of another it is certainly the duty of the mother to be watchful and observant of the course and teachings of the one in charge. Not only of the outings and clothing of the child, but the conversation and teaching, as well as proper guidance as to behavior, habits and associations. The regularity of the morning bath and proper dressing should not be neglected nor lost sight of, and the regular outing and fresh air, when the weather and conditions of health permit. All this, with regularity indoors, as well as out, contribute so largely to the general well-being of the growing child that they are formidable factors in early life, and always worthy of reminder and advisement. The heads of families, more particularly the maternal head, should certainly be advised by their medical counselors if not already conversant with the details and proper course to pursue in the rearing of the little ones. The course inaugurated in early training is the one that has its influence and becomes engraved upon the memory through all time to come.

Next comes the stage of early existence, when children come together in association, playmates and intimates. These intimacies should not develop and run together haphazard, as it were. Care and discretion should be exercised, to be sure that no contaminating influence creeps in to upset and destroy all the good teachings that has been inculcated in the young and impressionable mind. "Evil associations corrupt good manners." Often a pure young mind becomes soiled by even brief contact with a perverted one. Not infrequently a profane or vulgar expression will imprint itself indelibly upon a precocious child, with a retentive memory, and repeat itself in a most startling way, and at a most unexpected time. It is, therefore, prudent to avoid if possible all contact and association with the promiscuous urchin of the street. This applies, of course, to children old enough to talk and walk, and to distinctly notice what is transpiring around them. The mother, the nurse or the attendant should take it strictly in charge that no harm comes to the little one, either moral or physical. Good, impressive moral instruction to the walking and talking child, if properly and persistently persevered with, invariably has a most salutary effect. Faith and confidence in the father and mother is among the first attributes to be instilled into the mind of the child. Once trust and belief in the truth, candor and goodness of the parents are fully established in the heart and mind of the child, from that foundation may be reared and dedicated a citadel of faith, love and morality that should be as firm and enduring as a Gibralter.

This much achieved in early life becomes a sheet-anchor of confidence that is ever a protection against the multitude of evils which beset the young from all quarters, and those who escape all the sordid elements with which they are constantly surrounded are indeed the exceptions. All praise to the parents who early guide their offspring to the right course. Their reward is sure to come later in life.

Hotel Wolcott, Fifth Avenue and Thirty-First.

Enclosed find one dollar for your valuable journal, the MEDICAL BRIEF. I am a druggist, but find the BRIEF very interesting reading and proving of value to me in my business.—P. V. COOVER, Jacksonville, Ill.

[Written for the MEDICAL BRIEF.]

An Error of Diagnosis—Phimosis.

BY O. H. ROHDE, M. D.,
Professor of Orthopedic Surgery in the New York Eclectic Medical College.
Brooklyn, New York.

It is strange that in spite of the many warnings physicians receive regarding the necessity of examining the male child, many cases of oversight are reported. Phimosis in the male leads to many disorders, ranging from strabismus to actual paralysis, and the severest form of convulsions. These have been illustrated by various orthopedic surgeons, and are taught in every college, and yet every discerning, painstaking physician is compelled very often to remedy the oversight of the obstetrical practitioner, particularly, also, the carelessness of the midwife.

These remarks are called forth by the peculiar case of E. G., a fine manly boy of eleven years, born in Germany, and brought early to this counttry with his parents. Some two years after birth the parents noticed that there was a retention of urine, and at times a slight puffiness of the eyelids and face; again, of the abdomen, and sometimes of the feet. Little attention was paid to these swellings: they were supposed to be caused by a cold. As the boy developed they became more marked. Several practitioners were called in to prescribe for the child, sometimes affording relief, and sometimes not.

When the boy reached his eleventh year, the parents became alarmed at the constant state of edema of the various tissues, and a practitioner was called in, who pronounced the boy dropsical, deeming it a case of anasarca. The boy was obliged to leave school, and as the case became more severe other physicians were called in, as well as some professors, in consultation. It was decided to tap the abdomen, which was done, on the right side, and some two pints of fluid removed, giving temporary relief. The secretions, however, became stronger, and the distension greater. It was noted that the limbs did not swell, only the lower part of the abdomen.

I was called in hurriedly, one evening, near midnight, to examine this case, his physician being away. The parents asked me to make an examination of the boy, with a view to giving some relief. I carefully examined him, and found that he was almost bloodless, that he had been tapped, and that the abdomen was greatly distended.

On examining the genital organs I found, to my amazement, that the penis was abnormally small, with an adherent prepuce, having an opening through which it was almost impossible to insert a pin. On asking the boy to urinate, he could only pass a few drops, and that with difficulty. It was a typical case of phimosis, pitiable to see, as it meant death if circumcision could not relieve him. Stating these facts to the parents, and they convincing themselves of their truth, and remembering the various symptoms due to this condition in the past, they consented to circumcision, which was done the next day, and the glans penis fully exposed. The operation was almost bloodless, and gave but little pain, but it was too late. A catheter passed into the bladder the following day —there being no pain, and the stitches healing, found no water, the ureters dry, and direct drainage into the abdomen. With the consent of the parents the child was tapped, and a gallon of fluid removed. All was done to sustain the child, but he died the following day.

These are briefly the facts given as found. Comment can be made by the reader. If it were possible that a law could be passed which would compel the medical practitioner who acts as obstetrician, to perform circumcision upon all male children, doing this under the law of the land, the race would be stronger for this right, as the old Hebraic law is as potent towards making stamina and strength and physical well-being to-day as in the days of Abraham. It is the minor details, often neglected, overlooked, deemed of attention by and by, then forgotten, that causes sorrow in many a household, and brings a blight upon a being who would otherwise be in perfect health.

If this meets the eyes of those who are interested in their work, and who handle children to some extent, I would deem my observations to be of value, and feel

grateful to those who would aid me in endeavoring to place the male child upon as healthy a basis as ordained by the Almighty.

113 Reid Avenue.

Don't matter what others may say, I am going to think for myself and take the MEDICAL BRIEF, and my advice to all others is to do likewise.—W. C. KIMBRO, M. D., Tyro, Ark.

[Written for the MEDICAL BRIEF.]

Modern Advancement in Pharmacy.

BY G. C. DIEKMAN, PH. G., M. D.,

Professor of Pharmacy in Columbia University, New York City.

In the profession of pharmacy there are engaged in New York City a number of legally qualified practitioners of medicine, who were at one time, under the laws of the State of New York, entitled to register as pharmacists. The pharmacists of the city of New York have long recognized that their profession ought to be raised to the level of the practice of medicine, believing that the health of the community may be more jeopardized by lack of professional training on the part of pharmacists than on the part of the physician, for however careful the physician may be in prescribing, his best efforts are nullified by a lack of knowledge and experience in the compounding. They, therefore, have advocated the passage of a law which is intended to elevate the profession of pharmacy, in that it shall require that every applicant for a license to practice pharmacy shall present evidence of four years' practical experience, with a diploma from some recognized college of pharmacy, either in the United States or of some foreign country.

In return the colleges of pharmacy will require a certain standard of entrance, and in the State of New York such a law has been recently placed upon the statute books, to take effect January 1, 1905. Under this law the applicant for admission to a college will require a regent's certificate of at least twelve counts, which requirement will be, no doubt, added to in the very near future.

The object of this is to gradually raise the standard of admission, just as was done in the case of medicine.

This, in turn, should and will enable the colleges to turn out pharmacists who are in every way qualified to practice their profession in full accordance with the requirements of the physician and the public.

Graduates of the colleges of pharmacy are not usually found among those who either knowingly or dishonestly deal in adulterated drugs.

The first principles taught at the colleges of pharmacy are the maintenance of the proper standard of strength and purity for all drugs and preparations, and any deviation from these lines are never countenanced by any college.

Pharmacists, as a rule, are always willing not only to receive suggestions from physicians bearing on the more accurate carrying out of his plans, but they will at all times be found quite as willing to make suggestions to the physician concerning the mechanical details of compounding a prescription, as well as calling his attention to incompatibles, with which they are of necessity more familiar.

The status of the pharmacist at the present time in the different States of the Union is somewhat unsatisfactory as compared to the status of the physician. This state of affairs may be traced somewhat to the fact that the requirements for the usual license to practice pharmacy have not been sharply defined. The "practical experience" covers a multitude of sins, and may refer to work not at all connected with the actual practice of pharmacy. Under the old system, many persons of comparatively little education or training have succeeded in obtaining a license. It must be said, however, that a great many young men desirous of becoming pharmacists enter upon a course of study at some college of pharmacy without attempting to reach the goal of their ambitions by means of the "back-door" method, viz., the Boards of Pharmacy. In the various colleges and schools of pharmacy throughout the United States a goodly number of such students are in attendance. The average requirement of graduation in these schools and colleges is a term of two

years with an optional third year's course, known as the post-graduate course. Most of the colleges also require that the applicant be twenty-one years of age, and that he present evidence of four years' practical experience before graduation and granting a diploma.

The relations between physician and pharmacist are so close and important that a mutual co-operation can be of untold advantage to both, and the tendency of the times is towards such a co-operation.

115 West Sixty-Eighth Street.

Enclosed find one dollar for the MEDICAL BRIEF. I see you get a cussing by the ————; but the like of that only seems uncalled for and all out of order with me. I don't like to hear such and much less read it. This is my sentiment.—J. A. SMITH, M. D., Chattoogaville, Ga.

[Written for the MEDICAL BRIEF.]

A Study on Light, A Few Timely Scientific Facts Related for the Comprehensive Understanding of the Practitioner.

BY J. MOUNT BLEYER, M. D., F. R. A., M. S., LL. D.,

New York City.

(Continued from page 1073, December BRIEF.)

It has also been found that chemical decomposition is produced by the mere juxtaposition of different bodies. If iodide of gold or silver, perfectly pure, is placed upon a plate of glass, and a plate of copper covered with mercury is suspended over them, a gradual decomposition of those salts will take pace, iodide of mercury will be formed, and the gold or silver salts will be reduced to a finely divided metallic state.*

A body whose powers of radiating heat are low, being brought near another whose radiating powers are more extensive, will, in the course of a short time, undergo such an amount of molecular disturbance, as will effect a complete change in the arrangement of its surface, and an impression of the body having the highest radiating powers will be made upon the other. This impression is dormant, but may be developed under the influence of vapor, or of oxidation.† A body such as charcoal, of low conducting power being placed near another will, in a very short time, produce, in like manner, an impression of itself upon the metal plate. Thus, any two bodies whose conducting or radiating powers are dissimilar, being brought near each other, will produce a molecular disturbance, or impress the one with the image of the other. However small the difference may be, an effect is perceived, and that of the most extraordinary kind, giving rise to the impression of actual images upon each surface exposed.‡

Bodies which are in different electrical states act upon each other in an analogous manner. Thus arsenic, which is highly electro-negative, will, when placed near a piece of electro-positive copper, readily impart to its surface an impression of itself, and so, in like manner, will other bodies in unlike conditions. Every substance physically different, it signifies not whether as it regards color, chemical composition, mechanical structure, calorific condition, or electrical state, has a power of radiation by which a sensible change can be produced in a body differently constituted.

Fable has told us that the magicians of the East possessed mirrors in which they could at will produce images of the absent. Science now shows us that representations quite sufficient to deceive the credulous can be produced on the surface of polished metals without difficulty, etc. A highly polished plate of steel may be impressed with images of any kind which would remain invisible, the polished surface not being in the least degree affected as it regards its reflecting powers, but that by breathing over it, these dormant images would develop themselves, fading away again as the condensed moisture evaporated from the surface.

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* Rober Hunt, Philosophical Magazine, Volume XXII, page 270.

† Rober Hunt, on Thermography, Etc. Reports of the Royal Cornwall Polytechnic Society for 1842.

‡ Catalytic force, or attraction of surface, concerned in the diffusive power of gases; an occult energy or power in saturated saline solutions. Proter, *Mechanic's Magazine*, Vol. XIV, page 106; Ueber Elektrische Abildungen, by G. Karsten. Poggendorff's Annalen, Volume LVII, page 402. Melloni & Brewster may be consulted for much that is most remarkably connected with radiation and colored surfaces.

These, which are but a fraction of a series of results of a striking character known to us, serve to convince that Nature is unceasingly at work, that every atom is possessed of properties by which it influences every other atom in the universe, and that a most important class of natural phenomena appear, in the present state of our knowledge to connect themselves directly with the radiant forces.

The alchemist observed a change in chloride of silver under sunshine. Wedgwood first took advantage of that discovery to copy pictures. Niepce pursued a physical investigation of the curious change, and found that all bodies were influenced by the principle derived from the sun. Daguerre produced effects from the solar pencil of light which no artist could approach to, and Talbot and others extended the application.

Sir John Herschel took up the inquiry, and he, with his usual power of inductive search and philosophical deductions, presented the world with a class of discoveries which show how vast a field of investigation has been opened for mankind. Others who have followed since these days have added much to the great foundation left to us by its pioneers.

I now come to another part of the subject which is so intimately connected that I propose to take it up in some detail.

We receive heat from the sun, associated with light, and we have the power of developing this important principle in many ways, from nearly every kind of matter. Our convictions are that the calorific element, whether derived from a solar or a terrestrial source, presents no essential difference in its physical characters, but as there are some remarkable peculiarities in the phenomena, as they arise from either one or the other source, it will assist our comprehension of this great principle if we consider it under two heads.

Untutored man finds health and gladness in the warmth and light of the sun, and he rears a rugged altar, and bows his soul in prayer to the principle of fire, which, in his ignorance he regards as the giver and the supporter of life. The philosopher finds life and organization dependent upon the powers combined in the sunbeam, and examining the phenomena of this wonderful band of forces, he is compelled to acknowledge that the flame upon the altar is, indeed, a dim shadow of the infinite wisdom which abides behind the veil.

The present condition of our earth is directly dependent upon the amount of heat we receive from the sun. If it were possible to move this planet so much nearer that orb that the quantity of heat would be much increased, the circumstances of life would necessarily be so far changed that nearly all the present races of animals would perish, and the same result would happen from any alteration which threw us yet farther from our central luminary, when, owing to the extremity of cold and the wretchedness of gloom, all living creatures would fail to support their organization.

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All things are adapted to the circumstances of the position of the earth in relation to the sun, to which, as has been shown, we are bound by the principle of gravitation, and in our examination it will be found that our common system of harmony runs through all the cosmical phenomena, by which is produced all that is so beautiful and joyous in this world.

Heat and the other elementary radiant principles are often combined as the common cause of effects evident to our senses. The warmth of the solar rays, and their luminous influence, are not, however, commonly associated in the mind as the result of a single cause. It is only when we come to examine the physical phenomena connected with these radiations that we discover the complexity of the inquiry. Yet it is out of these very subtle researches that we draw the most refined truths. The high inferences to which the analysis of the subtle agencies of creation lead us, render science, pursued in the spirit of truth, a great system of religious instruction.

(To be continued.)

Enclosed find two dollars, for which send me the BRIEF as long as it will pay for. I have taken and read the BRIEF for a long time and am not tired of it yet. The BRIEF and I are fast friends, in fact, a little bit inclined to be cronies.—W. H. BROWN, M. D., Lodwick, Texas.

BRIEF TALKS

Articles for this department should be practical suggestions that will interest the busy practitioner. They should be short and to the point, and not contain more than one hundred words, but may be much shorter.

[Written for the MEDICAL BRIEF.]

Chorea.—Boy aged fourteen years was so bad he could not walk straight, and if he attempted to go through a door, he would strike the sides. Could not feed himself. Gave agaricine, 2x two-grain tablets every two hours for two weeks, then four times a day with absolute rest. It being warm weather, he was allowed to rest in a swinging chair. Also had good nutritious diet. Recovery in ten weeks.

A girl, Miss H., aged twelve years, not so bad, received same treatment at the same time, but allowed her to go where she pleased. Recovery in two months.—Edward Andruss, M. D., Holden, Mo.

[Written for the MEDICAL BRIEF.]

Stomach Trouble.—Aged thirty-two; ailing for fifteen years. Sudden attack of cramps in stomach and bowels. Had explosions which could be heard by anyone; apparently in veins. Sometimes in hands, on back of hands, on forehead, and any part of the body. The veins would seem to puff up until a spot seemed as though it would break through the skin, would suddenly collapse, and a noise could be heard. After a time vomiting would occur. Finally, I concluded that I could do no more good. I found that chionia kept the action of the bowels (which were very irregular) as good, if not better, than any combination I made or used.

After going to a hospital in New York City, the attending doctor could see no reason why she could not get better. All functions except the stomach were in a normal condition. After a little time, the doctors at the hospital concluded they did not know her case, and such men as Dr. Gilman Thompson, Janeway and others were called in. They could not see anything dangerous, and practically agreed with the hospital doctors. In spite of their views of the case she lingered along and died. What always puzzled me was after one of her cramp spells, and the explosions apparently in the veins, terrible retching and vomiting, seldom anything besides the food, and almost clear water came up. Within twenty-four hours after such a spell, when it seemed as though she never would live through it, she would be up and out attending to her Sunday school class, riding, working, etc.

At times she had only headaches accompanying the explosions in the veins. Therefore, it seems that those who have many more cases than the country doctor, do not at times get much nearer to the cause of the disease than the poor country doctor.—A. D. Ayer, M. D., Madison, Conn.

[Written for the MEDICAL BRIEF.]

Nervous Indigestion.—Bromide of strontium in the form of an elixir, twenty grains to a teaspoonful, has been of great service to me. It has been successful when all other remedies failed. Try it.—John W. Bennett, M. D., Long Branch, N. J.

[Written for the MEDICAL BRIEF.]

Modern Medicine.—This is the great battlefield of life, and here it is that we have the great problems to solve, and the physician has no excuse for not standing abreast with the profession, surrounded with literature treating upon the great questions which we come in contact with each day. Besides this we have the experience of noble men who have spent much of their lives in placing before the

profession the scientific side of the practice of medicine and surgery, and we regard the MEDICAL BRIEF to be authority for many of the great and noble answers given to these questions. We have lived in the old rut where the physician resorted to depletion by bleeding, or the use of powerful medicine that would deplete his patient. Now that a more thorough investigation has been made, we have come to the light, and resort only to medication. It matters not to the surgeon of to-day whether there are bugs up his sleeve or not, for he is on the alert, and will use all the precaution necessary to prevent infection.—J. C. Branch, M. D., White Cloud, Mich.

[Written for the MEDICAL BRIEF.]

Erysipelas.—On page 781 of the September BRIEF, Dr. Conklin, in giving the treatment of erysipelas, says: "Salicylate or bicarbonate of soda will give results not to be had from any local treatment." I wish to say that lobelia is equal to any single drug in the local treatment of erysipelas, and when combined with bicarbonate of soda, as follows, is as near a specific for erysipelas, rhus poisoning, and various other skin diseases as a remedy can be:

℞ Ext. Lobelia Fl..... 1 ounce.
Sodium Bicarbonate ..... 1 ounce.
Aquæ Pur....q. s. ad.....16 ounces.

M. Sig.: Keep a cloth, saturated with the solution, applied to the parts all, or nearly all, the time.

—J. A. Burnett, M. D., Pauline, Ark.

[Written for the MEDICAL BRIEF.]

Tonsilitis.—Safe, sure and pleasant, easy to carry with you, and no trouble to dispense; you will want it before spring: Potassii permanganate, two grains, in glass of water (four ounces). Tablespoonful every two hours as gargle. Apply cold water compress to throat.

℞ Aconite .....1-134 grain.
Atropine .....1-134 grain.
Calomel. .....1-16 grain.

Sig.: One of each for each year of the child's age, in twenty-four drachms of water. Teaspoonful every hour (unless you get physiological action of atropine—*i. e.*, dryness of throat, dilated pupils, etc., or tingling of extremities—then give every two or three hours). For adults, give one of each granule every two hours.

Try all things, and hold fast to the good. There is good in all systems, but no one system is all good. "There is so much good in the worst of us, and so much bad in the best of us, it doesn't behoove any of us to find fault with the rest of us."—G. B. Clark, M. D., Armonk, N. Y.

[Written for the MEDICAL BRIEF.]

Washing the Newborn Babe.—Place a warmed bath tub on chairs or a bench, and cover its bottom with a sheet, put enough water in to saturate the sheet and to rise above it one inch, place the baby on its back in the tub, and bathe it deliberately. The water should be "good and warm." The proper thermometer for testing the water is the bare elbow. Lift the baby out into a blanket, protected by a diaper, and dress it as nearly as possible under cover. By this method the baby will have a fine glow of skin when bathed instead of being blue as a plum, and with flesh feeling like a toad.—J. J. Conner, M. D., Pana, Ill.

[Written for the MEDICAL BRIEF.]

Indigestion and Biliousness.—A practice of more than twenty-five years has convinced me that there are few diseases more common than indigestion and biliousness. To counteract these most troublesome affections, I have tried calomel, podophyllin, leptandrin, soda, and the digestive ferments. All of these agents have merit, but still I found that I needed a remedy that I could, in office practice, give to all sorts of patients, that would afford results. After much experimentation, I evolved the following prescription:

℞ Fl. Ext. Cascara Sagrada..1½ ounces.
Fl. Ext. Rhubarb .....1½ ounces.
Fl. Ext. Juglans .....6 drachms.
Fl. Ext. Wahoo .....6 drachms.

M. Sig.: Teaspoonful in half-glass of sweetened water, after eating.

I have used this formula for a long time with the most satisfactory results in indigestion and biliousness, and sincerely recommend it to the readers of the MEDICAL BRIEF.—Milton P. Creel, M. D., Central City, Ky.

[Written for the MEDICAL BRIEF.]

Alum.—The use of alum after operations where there is great abdominal distension. The use of alum enemas of the following strength, one to two drachms of

powdered alum to two pints of warm water, often acts when every other remedy has failed. After the enema there is expulsion of flatus, and usually a bowel movement, which gives the patient great relief. Squibbs' compound alum powder dusted freely on indolent wounds, especially leg ulcers, acts rapidly, and heals them in a much shorter time than the usual astringents used.—Constance V. Curtis, Phoenixville, Pa.

[Written for the MEDICAL BRIEF.]

Erysipelas.—Erysipelas has for the past sixteen years been one of the easiest diseases to treat which has been my fortune to encounter. I will say that I never had anything but good results. Paint the inflamed parts with fluid extract veratrum viride three times a day, using a small camel's hair brush at night, washing the parts painted with a solution of bicarbonate soda, and again painting; only wash once a day. At the same time give the following:

℞ Fl. Ext. Veratrum Viride....10 drops.
Water....q. s..... 4 ounces.
M. Sig.: Teaspoonful every hour.

Try this and report to the MEDICAL BRIEF.—Eli Denny, M. D., Amsterdam, N. Y.

[Written for the MEDICAL BRIEF.]

Diagnosis of Tobacco Amaurosis.—

1. At first one sees best at night.

2. Vision may be a little improved by smoke-colored goggles.

3. Red and green colors are confounded. Red with pink, dark brown with black, and green with light blue.

4. There may be a central scotoma, yet the disease may exist, and the ophthalmoscope give no aid in detecting it.

5. No gap is found in the field of vision if it is tested with a white object, but the trouble is revealed at once if you use a red or a green one.

6. Vision is about the same in both eyes, *i. e.*, the patient sees as well with one eye as with the other, a fact which distinguishes tobacco amaurosis from other ocular troubles, such as choroiditis, pigmentosa retinitis, atrophy of the optic disk, cataract, etc., in which the two eyes are always affected in visual acuity in different degrees.—Anderson Nelson Ellis, A. M., M. D., Maysville, Ky.

[Written for the MEDICAL BRIEF.]

Calcium Fluoride.—Calcium fluoride, 6x trituration, in one-grain doses has given me the greatest satisfaction in curing diseases of the vascular system where it acts by contracting the elastic fibers in the walls of the vessels. I have had wonderful results in stopping pulmonary hemorrhage and blood spitting which nothing else affected; also in stopping the humming cough preceding hemorrhage, and thus aborting it.

It has permanently cured varicocele, varicose veins and hemorrhoids by long-continued treatment. It is also indicated in hard stony glands—induration, threatening suppuration, spots on cornea, etc. It is very useful in threatened miscarriage. After an experience of twenty-five years in medicine, during which I have impartially studied all the different systems, I find homeopathy to be the sheet anchor.—A. M. Duffield, Citronelle, Ala.

[Written for the MEDICAL BRIEF.]

Change of Climate.—Doctors of the lower altitudes, when contemplating a change of climate for your patients, who need sunshine and dry air, for those suffering from tuberculosis, chronic bronchitis, asthma, emphysema, heart trouble, etc., keep in mind the fact that high altitudes (four thousand feet and up), have a deleterious effect upon the nervous system, and, as a rule, nervousness is exaggerated. Very often nervous symptoms develop in those who have not noticed it in the lower altitudes. Nervousness in all its manifestations seems to be more pronounced in the female than in the male.—Samuel C. Gibson, M. D., Reno, Nevada.

[Written for the MEDICAL BRIEF.]

Typhoid Fever.—Why is the medical profession so prejudiced against the Woodbridge treatment of typhoid fever? It is exactly everything and all that is claimed for it. An antiseptic and abortive treatment, it is almost a specific. I have used it in every case I have had since 1895. Have treated a hundred or more cases—lost one. He had a normal temperature the thirteenth day, but had a second reinfection and died. Have

had but two other relapses, which recovered in the same time of their first attack. I never had tympanites. Keep the bowels acting five to ten at first, and, later, two to three times a day. In the fall of 1902 I treated eighteen cases, ten white and eight colored. All got well. The longest duration of fever, twenty-one days, the shortest, nine. Only one had a trained nurse, and the majority had absolutely bad nursing. One mother who had carried two children through the disease singly, and who was five months pregnant, had her medicines on a chair beside the bed, and helped herself, nobody to help her. Fever broke the twenty-first day, and I delivered her at full term.

As to food, I do not give milk. It is indigestible in most cases, and indigestible food is more harmful than solid food. That is where you always get your tympanites. I give broths, extract beef, liquid peptonoids, with or without guaiacol, panopepton or predigested beef, and egg albumen.

Strychnia is indicated in all cases as well as a little whisky after a few days of sickness. From the time the temperature strikes normal, I give the following prescription:

℞ Acid. Nitro. Mur. Dil.....3 drachms.
Chionia. .....3 ounces.
Elix. Simp.....3 ounces.

M. Sig.: Two teaspoonfuls in water three or four times a day.

—J. H. Lampton, M. D., Springfield, Ky.

[Written for the MEDICAL BRIEF.]

Tumors.—To avoid pain, and save twenty-four hours' time in removing tumors by caustic plaster, remove the skin from the area of your intended plaster by injecting a weak solution of cocaine, and dissect immediately the part that is numb. Repeat the injection from the insensible part under the part next to be cut. Begin at the side of the greater nerve supply. The unabsorbed cocaine escapes so readily that I have removed an area of four by six inches without depression. Confine the caustic plaster at least one-fourth inch from the margin of the skin. Examine the effect of the caustic at least thirty hours earlier than when dermis is present.—Wm. Lane, M. D., Lockport, N. Y.

[Written for the MEDICAL BRIEF.]

Pruritus.—From whatever cause, try Lloyd's apis, five drops; aqua, four ounces. Teaspoonful every one to two hours. Or, sodii salicylatis, two grains every two hours. Or:

℞ Acidi Carbolici .....48 drops.
Glycerini ..... 1 drachm.
Vini Xerici..q. s. ad..... 3 ounces.

M. Sig.: Teaspoonful three times daily after meals.

Locally:

℞ Acidi Carbolici .....2 drachms.
Potass. Fusæ.....1 drachm.
Aq. Distillata .....1 pint.

M. Sig.: Apply freely and often.

—T. M. Lippitt, M. D., Columbus, Ohio.

[Written for the MEDICAL BRIEF.]

Bronchitis.—I have found the following usually effective:

℞ Ichthyol .....2 drachms.
Creosote, Beechwood .....2 drachms.
Heroin Hydrochlor.....4 grains.
Cascar. Arom. .....1 ounce.
Glycerini..q. s. ad.....6 ounces.

M. Sig.: A teaspoonful an hour before each meal and at bedtime.

Also producing counter-irritation over sternum, and branching out toward nipples on each side, with following unguent:

℞ Hyd. Chloridi Mitis.....12 grains.
Iodinii Resub ..... ½ drachm.
Spts. V. S..... 1½ drachms.
Ung. Simp ..... ½ ounce.

M. Sig.: Rub well into skin over sternum as above stated, until an eruption comes out, and then keep somewhat tender.

—J. A. McCallum, M. D., Arkadelphia, Ark.

[Written for the MEDICAL BRIEF.]

Inflammatory Rheumatism.—Give Warner's elixir of salcyl. acid comp. to the limit, tablespoonful every three hours until relieved of pain, then every six hours. Give, also, four of Luyties' No. 14 tablets every four hours. Use locally upon the joints affected the following prescription:

℞ Chloral Hydrate ..... 2 drachms.
Camphor .....20 grains.
Menthol .....10 grains.
Chloroform..q. s. to dissolve.

Then add:

Oil of Mustard.....½ drachm.
Oil of Wintergreen, Pure... 2 drachms.
Cocoanut oil.....3 ounces.

The joints are then to be protected with absorbent cotton. Clean out the bowels, and place patient upon a milk diet with plenty of pure or lithia water.—Cornelius F. McCarthy, M. D., Batavia, N. Y.

[Written for the MEDICAL BRIEF.]

Bronchitis.—In conjunction with internal treatment, the following will be found of benefit. It gives the patient something to do to employ his mind, thus acting as a "suggestion" as well as by its tangible effects:

℞ Vinegar ..... 4 ounces.
Coal Oil..... ½ ounce.
Turpentine ..... ½ ounce.
Boil in vessel and inhale.

—W. T. Marrs, Jewett, Ill.

[Written for the MEDICAL BRIEF.]

Post-Graduate Course.—More valuable than some favorite prescriptions. A duty the doctor owes himself and his patron is a two or three months' course in some clinical or post-graduate school within every three years. He will improve physically and mentally. He will return to work with renewed vim and vigor. His knowledge will be newer and vaster. Upon his return he will find business better than when he left. He will be spoken of as an up-to-date physician, a thing of which the American people pride themselves. To leave a good practice under the above conditions is not to lose it. I write from personal experience, having taken three such courses in a limited practice of only six years. Improve yourself, and your business will improve with you.—A. B. Middleton, M. D., Pontiac, Ill.

[Written for the MEDICAL BRIEF.]

Follicular Tonsilitis.—The following has invariably been successful in my hands, and is, to my thinking, preferable to the many formulas for gargles and for applications per swab or brush:

℞ Potass. Chloral.....1½ drachms
Tinct. Ferri. Chlor.....4 drachms.
Glycerinæ .....1 ounce.
Aquæ Pur..q. s. ad.....3 ounces.
M. et Sig.: One teaspoonful every three hours.

If there is a history of rheumatism, I give the above mixture three times a day and add one tablet made up as follows:

℞ Tinct. Aconite .....1-5 min.
Tinct. Belladonna .....1-10 min.
Tinct. Bryonia .....1-10 min.
Mer. Iod. Red.....1-100 grain.
Morphine Sulph. .....1-100 grain.
Sodium Salicylate.....1 grain.
Oil Wintergreen (Fraser)...1-20 min.
M. Sig.: One every hour.

—Willis Clarke Noble, M. D., Montclair, N. J.

[Written for the MEDICAL BRIEF.]

Bronchitis.—

Expectorants—Ammonium carb., ammonium chlor., ipecac, lobelia, apomorphin, balsam tolu.

Checks Secretion—Atropin, catechu, morphin.

Sedatives.—Cannabis, codein, morphin, bromide, quinine.

Anti-spasmodics — Asafetida, atropin, morphine.

Respiratory Stimulants—Benzoic acid, arsenic, cocain, heroin, caffein, strychnin, quinine.

Antiseptics—Creosote, eucalyptus.—M. G. Price, M. D., Mosheim, Tenn.

[Written for the MEDICAL BRIEF.]

How to Reduce Temperature Safely Without Anti-Pyretics.—Bathe patient in hot water, or, if too weak for general bath, use hot wet towel, and surface bathe him. Then apply alcohol dilute freely to the body. Immediately afterwards apply with friction to back, breast, bowels, under arms, under knees, and to soles of feet:

℞ Quinine .....60 grains.
Lard ..... 1 ounce.

Repeat the applications of alcohol and the ointment as often as the skin is dry until fever is under control. One bath or hot water rubbing daily will suffice, but watch carefully, and apply the other as often as dry. Good results have been obtained frequently from the above by me. —Luke Robinson, M. D., Covington, Ga.

[Written for the MEDICAL BRIEF.]

Scalp Wound.—Some time ago I was called to see a case in the country. I found a boy with half his scalp torn away. I examined for fracture, etc., and finding none sewed the wound up. A week later I was called and found anterior branch of temporal artery bleeding. Dr. —, a country doctor, had been there, and said nothing could be done but bathe parts in cold water, or send to town for two doctors to do an operation. When I arrived, patient was too weak to take chloroform, so I took a cork and placed it over temporal artery, in front of ear, and passed strip of adhesive plaster over top of head and under chin. This stopped the hemor-

rhage, and the boy is now well. If he had died, would or would not Dr. — have been responsible?—Sam N. Scott, M. D., Somerset, Ky.

[Written for the MEDICAL BRIEF.]

Collections.—To most practitioners, collections is a matter of vital importance. Try this: When called to a case where pay is doubtful, make one call, and when called again, get your fee for the first call before making the account larger. Make obstetric cases cash unless you know the money will be forthcoming. Collect your bills regularly as other business men do. It is your money for which you ask your debtor. It is not nearly so great an infringement on your professional dignity to ask for your fee, or to collect by law, if necessary, as it is to run into debt.—A. W. Stiles, M. D., Apalachin, N. Y.

[Written for the MEDICAL BRIEF.]

Beechwood Creosote.—The intelligent use of beechwood creosote by the profession for the treatment of tubercular and pyemic conditions, should receive more consideration.

I believe the prejudice existing against the use of this most valuable and time-worn remedy is chiefly due to its administration in small doses, and the consequent negative results.

It has not been my privilege to treat a greater number of consumptives than fall to the lot of the ordinary, but marvelous results have come under my observation. Be sure and get a pure article, and then give the patient the benefit of therapeutic doses.

Ordinarily, I start them on five-drop doses three times a day, increasing five drops a dose, until thirty drops are given each dose. No sense of discomfort follows, as a rule, a sense of warmth being the only symptom noticeable. Where a stomach is weak and irritable, the doses must be increased gradually.

I have given sixty drops three times a day without discomfort to the patient, and noticed marked improvement. A colleague of mine found it necessary to increase his doses to one hundred and ten drops three times a day to a case of tubercle, after which improvement took place, and the patient soon got up and about as usual.

I combine five minims of ol. peppermint with each drachm of pure creosote, and administer in gelatin capsules. Have the nurse fill the capsules with the proper dose, which can easily be done with a medicine dropper. Each dose should be followed by a small quantity of wine, spirits, or milk.—C. R. Sanderson, M. D., Waynesville, Ill.

[Written for the MEDICAL BRIEF.]

Chronic Gonorrhea.—J. S. called to see me, September 16, 1903, suffering with chronic gonorrhea. I at once ordered him kali bromide, ten grains to the dose, repeated every five hours, to overcome any chordee that might arise. He reported to me three days later, and I commenced irrigation of the urethra, with a solution of kali permanganate, one grain to each ounce of water. I continued this mode of treatment every night for three weeks, the fourth week irrigating every other night. At the end of the fourth week the discharge had disappeared, and I pronounced the case cured. It is now over one year, and there has been no return of the disease.—J. C. Tanner, M. D., Hartford, Conn.

[Written for the MEDICAL BRIEF.]

A "Rung Shell' Case.—Was called to a case of gunshot wound of abdomen. The charge entered below navel, and to left of median line, point of entrance being perfectly round. Load was found in lumbar region, the shot in solid clump, with one wad in front and two behind it removed. What was the explanation to finding? Patient was shot with rung shell, one rung with knife between powder and shot. Where was the shell? Nobody knew.

After temperature became septic, track was opened, and shell found two and one-half inches from site of load, between abdominal muscles and parietal peritoneum. Patient suffered on account of my ignorance of a rung shell. A rung shell shoots beyond the gun's range, shell, wad, and shot keeping together, same as rifle ball. All such wounds demand immediate interference and operation.—L. M. Winn, M. D., Clayton, Ala.

[Written for the MEDICAL BRIEF.]

A Plea for Milder Eye Treatment.—I am frequently consulted by patients suffering from mildly inflamed eyelids, whose condition has been made worse by remedies that were too energetic; as, for instance:

℞ Zinc Sulph.....2 to 5 grains.
Aquæ, 1 ounce; or Hg. Ox. Flav. 1 to 3 grains.
Vaseline.....1 drachm.

The mild cases of inflammation of the ocular mucous membrane yield to much milder treatment. I write for:

℞ Zinc Sulph .....1-2 to 1-3 grain.
Sodium Chloride.....6 grains.
Aquæ Rosæ .....1 ounce.

Put three to four drops in eyes every half to two hours according to case. Frequent application of mild agents relieve these cases quickly. The yellow oxide is a most useful agent also. I use:

℞ Hg. Ox. Flav.....1-5 grain.
Sol. Adrenalin or Suprarenalin ..... 3 drops.
Lanoline ..... 6 grains.
Vaseline ..... 1 drachm.

Put a small piece in the eyes at bedtime; also in the morning, if needed.—W. H. Wakefield, M. D., Charlotte, N. C.

[Written for the MEDICAL BRIEF.]

Gastralgia.—Gastralgia is one of the most painful conditions of the stomach with which we have to deal. It being almost next to impossible to relieve the paroxysms of excruciating pain. I have found the following prescription of great value in this trouble, it giving almost immediate relief, even in those cases where everything else had failed:

℞ Ol. Caryophyllus .....2 drachms.
Tr. Opii. Camph.....2 ounces.
Spts. Vini Gallici..q. s. ad...3 ounces.

M. Ft. Sig.: One drachm in hot water every two or three hours until relieved.

—Edwin A. Weimer, M. D., Pekin, Ill.

[Written for the MEDICAL BRIEF.]

Fever.

BY J. W. STEWART, M. D.,
Big Flats, N. Y.

The history of practical medicine consists of little else than a review of the theories which have arisen and sunk again, concerning the nature, the causes, the prevention and treatment of fever. Is this ever true? Whatever other objects or conditions of interest or importance within the domain of medical science which may have attracted the attention of physicians, fever has at all times been viewed as presenting the most extensive and inviting field for observation and exercise of ingenuity. It is in this department that observation and research have been most industrious in accumulating materials, and that hypothesis has luxuriated in her wildest exuberance. It is considered that the destroying angel has made its most devastating visitations under the form of febrile epidemics, and in the long list of human maladies fever occurs to a greater or less extent in the majority of the subjects we are called upon to treat.

The great importance of this subject is strongly forced upon our considerations from a retrospective glance of the history of our science. We are forced to acknowledge that there is, perhaps, no subject which is more eminently calculated to humble the pride of human reason than this one. In relation to this subject, pathology has been in a continued state of revolution and unstability. Theories have been advanced in a continued and rapid series of succession, and dreams of speculation have vanished; the glory of her empire has gone by, and the genius of rational reason is now the only power under whose direction science presses forward to battle in this conquest of knowledge.

The human system is continually under the influence of causes which have a tendency to intercept and terminate its action. Life would be short in its duration, and harassed by constant disease if the animal organization were not endowed with the inherent power of resisting to a degree the influence of injurious causes. It is by the aid of this vital resistance that man is enabled to live through a long series of years amidst a multiplicity of causes which conspire unceasingly to his destruction. In relation to the degree in which this power of resisting injuries is possessed by different individuals, there exists a great diversity. Thus a wound by a needle or a rusty nail will in one individual cause great pain and constitutional irritation, in another syncope, in a third tetanus, in a fourth scarcely any

perceptible disturbance; hence the various degrees of constitutional or natural predisposition to fever. That the derangement of the nervous system constitute the initial link in the chain of morbid actions which occur in the development of fever, there can be no doubt.

Admitting that the nervous system and the lack of the power of resistance are factors largely connected with all diseases attended with elevation of temperature, it is of great importance that the two conditions spoken of be well attended to, with those who present themselves to the physician for advice and treatment.

Please find enclosed two dollars to pay for the MEDICAL BRIEF for two years. I have learned to like the BRIEF exceedingly well.—CHAS. A. DAY, M. D., Boston, Mass.

[Written for the MEDICAL BRIEF.]

Diet and Destiny.

BY SAMUEL S. WALLIAN, A. M., M. D.,
Editor "Dietetic and Hygienic Gazette," New York.

The food of a nation fixes its rank and standing among other nations.

The diet of the individual determines his character, his ambitions, and his destiny. It measures his mental, moral and physical growth and development. It predisposes him to health, or dooms him to disease, the quality and nature of the food controlling the particular variety of the malady, idiosyncrasy or diathesis.

The infant sucks his constitution, temperament and tendencies from his mother's breast, when that normal and noble fount is not superseded by a disgusting rubber nipple and a never-clean nursing bottle of skimmed or scalded milk. The adult buys his, at two hundred and fifty per cent profit, from his adulterating grocer, the insatiate beef trust, or his alum-and-plaster-and-chalk baker.

Diet either invites or repels invasion—the infections. It either induces or prevents the inroads of the dyscrasiæ—tuberculosis, carcinoma, gout, rheumatism and the dermatoses.

Diet constitutes the right, left, center, and reserve corps in every battle with disease. Whenever the impending fate hangs suspended between diet and drugs, diet wins, or the battle is lost.

The new century accredits no cures for consumption outside of air and alimentation, and air is food, an essential food, without which no mammal can for a moment maintain its vital integrity. The lungs and skin both ingest and assimilate, not as mere auxiliaries or secondary aids, but as primary and fundamental resources.

The stomach has been proclaimed the citadel of life, but man breathes before he eats, and could not assimilate an ounce of either solid or liquid food, if he did not first appropriate a requisite and adequate supply of æriform food—oxygen. To maintain an approximate equilibrium between the intake of air and the ingestion of aliment is a fundamental law of physiology.

Nutrition is not the result of a series of chemical reactions, but occurs as a sequence of intricate vital transformations which we can neither understand nor describe, except by tagging them with a Greek title—Metabolism.

All the wasting diseases are inevitable sequences of faulty metabolism, and faulty metabolism is but another name for some phase of inanition, innutrition—starvation.

There is nowhere a dearth of food, but everywhere a surplus, for these are the days of bountiful harvests and universal over-feeding. Therefore, in every lapse from health, either some essential elements have been lacking in the food, or the equilibrium between alimentation and respiration has been ignored or destroyed.

It is oftener poor food than impure food that underlies the health-lapse.

Wherein lies the fault?

We have not far to look. This is a generation of starch-eaters.

Too many sanitarians and dietarians have lost their bearings by accepting the physiologic vagary that starch is synonymous with stamina. There could be no more serious dietetic blunder. Starch builds an inferior and effeminate quality of either brain or brawn.

What is baker's bread? Degenerate starch. What are morning rolls? The same starch, with a little more crust,

served hot. What is pastry? Starch, undergoing fatty degeneration. What is cake? Starch, sweetened, egged and superfatted. What is macaroni? Soggy starch, drawn into cylinders, and dried. What are ordinary crackers? Starch that has been robbed of every trace of its redeeming gluten—beaten, shortened and baked. What is rice? As used in polite and refined America, pure starch; as used by the hardy Japs and heathen Chinee, an excellent proteid food, capable, with slight additions, of sustaining life indefinitely and well.

Diet will determine the ultimate outcome of the pending Russo-Japanese war.

509 Fifth Avenue.

Without sycophantism, I am a friend of the Editor of the BRIEF and like the journal. I admire the editorials; they have the right ring. Bow not to any man; treat all manly, which I believe you do. Success to the BRIEF.—L. A. SMITH, M. D., Topax, Mo.

[Written for the MEDICAL BRIEF.]

What is Suggestion?

BY A. A. LINDSAY, M. D.,

Principal St. Louis College of Suggestion.
St. Louis.

Suggestion used scientifically in moral culture is a most efficient agent. A youth eighteen years old applied at my institution in San Francisco to become a subject upon whom I could demonstrate in teaching psychology. His thoroughly disreputable appearance made me hesitate at first, for he was foul without and within, but I decided after discovering most profound degeneracy of character that it would be an excellent opportunity to learn if the last spark of good ever does die out of the human soul. Every class of bad habits mentionable and otherwise was fixed upon him, including dissipation in alcoholism, tobacco, gambling, lying and idleness.

I developed him as an hypnotic subject upon whom I could demonstrate every phase of physical suggestibility, such as removing the sense of pain, producing catalepsy and also show the various phenomena in hallucinations. I began with treating him by first at each sitting talking to him about the unprofitableness of dissipations of various kinds. He even smiled in his hypnotic state when I began to talk of better things than he was doing. I determined that a general reformation could not be produced in him suddenly and that I would have to take up his offenses, item at a time. I saw that his incessant associations that were connected with his gambling had more to do with his catalogue of habits than any other individual situation. I conversed with him while in the hypnotic state, and when he told me how much loss there was in his practice I began the insinuation that with perpetual losses which he would always meet with he would begin to consider the matter of giving up the thing. At following sittings he would tell me he was disgusted at being cheated all the time. Feeling my way cautiously not to give a suggestion that would cause him to never return, I pressed the losing phase of gambling until he had a desire to quit, but hardly strong enough to not go and try once more. I had demonstrated so often that he would respond to every physical suggestion, I gave him the suggestion that he would not be able to pick up the card and if he should manipulate it into his hand he would close his fingers down so tightly he could not let go of the card. At his next visit he had much feeling toward his companions, for he said they kicked him out because they thought he was making fun of them acting like his fingers were all thumbs. He did not remember my suggestions at all. He becoming unfitted for his old companions was a great help, for they wanted no one not congenial, and he did not like them either after their treatment when he had bought the poker chips and was not permitted to play. I strengthened at each treatment the suggestions against gambling, then began upon the drinking. He found suddenly that all liquors had become nauseous to him (according to my suggestion) and as he had heard me teach that habits and desires were controllable by suggestions given in the hypnotic state he asked me to treat him so he could drink steam beer, for he said he wanted

to quit all other drinks, but wanted to be sociable some way with the boys, and besides, he liked steam beer.

I gave him the suggestion that wine, whisky and all other liquors would be so sickening to him that he would not want them nor be able to retain them if swallowed. At his next visit he was sorrier than ever regarding all but the beer, and he was regretting he could not drink that with more relish. He said they gave him such awful rotten stuff when he called for beer, but he said that he must drink something.

I then gave him the suggestion that he would not be able to lift a glass of any liquor to his mouth; that his arm would refuse to carry it, and with this final treatment along this line and with his failure to get the glass to his lips he was fully receptive to the moral appeals I made, and he gave up all these habits, but it took me three months to get him away from that class of association and dissipation. I continued treatment for six months altogether, and at the end of that time there was nothing but his name to suggest the youth I took in at the beginning. He had gotten neat in his dress and careful in bathing, polite in manner and a face of a human instead of the awful visage formerly presented. He had become industrious and taken hard work at the iron works. With this result in the most extravagant reprobate I ever had dealings with I would not consider any one, however criminal he might be, without hope and promise of reformation under suggestion properly used. There are several points in this interesting clinic that need our careful attention lest the beginner in such operations would fail. First notice that I could not give him a positive suggestion at first that he would never gamble, drink, smoke or dissipate other but that I had to take up his habits, class at a time; but the particular thing to notice is that even in a deep hypnosis I could not begin with him by a strong and positive suggestion that he would be cured immediately. I knew full well that such a positive suggestion which was so diametrically opposite to his habit (his auto-suggestion) would probably be such a shock to him that he would come out of the state, or if he did not he at least would never return to my office. I began in the most insidious way by mild insinuation, barely referring to his practices and not referring to them as his, but introducing the idea of his repulsion for it in others.

I profited in his instance by previous experience, in which a parent brought his son to me to be treated, so far as the son supposed, for a physical disorder, but I was requested by the father to treat him also for a moral correction. I gave the suggestion strong and positive and never got the boy back again.

This case needs some consideration at my hands in view of what it will suggest to the reader of limited knowledge in psychology.

To every one, informed or otherwise, it is evident that there is always a spark of good in the human heart. That gentleness and tact can fan this into a flame of righteousness is as plain.

We all need to see both sides of a question, and you are saying if suggestion can build character like that would it not if misused be just as effectual in breaking down a good standard of morals and cause wrong habits in the pure? The reply must be in the affirmative, with some important modification, however. It is inherent in the soul to ever strive to maintain moral and physical integrity and, therefore, when that intelligence is brought uppermost all reforms suggested co-operate with that which is soul's nature and fine reception. However, if a man with a high standard of morals were to place himself subject to day after day for six months hearing suggestions contrary to the high standard, he would come down to the standard suggested. This is demonstrated thousands of times without hypnosis or a trained suggestor, for the best and purest if placed in the environment of unclean kind and remaining there will become like that which is constantly before his eyes or within his hearing. He at least partakes to some extent of the nature of that which is ever before him.

Even though it be true that an operator could, if he had the opportunity for six months to give bad suggestions, destroy

the high standard, how is he going to get that opportunity? Who is going to place himself under the treatment of a pickpocket or any other sort of a criminal. Hypnosis can not be forced upon any man or woman. The deeper states are rare, and only after long development is forgetfulness (amnesia) possible, and so there is that protection to every one that makes the misuse of suggestion in the hypnotic state impracticable and improbable though possible, if any person deliberately selects an evil-minded operator and elects to keep himself under such treatment at his hands for months. The ifs in the case prevent hypnosis from being a partner in crime or even a helpful agent.

This article is not self-luminous, but needs the aid of those published in the MEDICAL BRIEF August, September and October, 1904.

2120 Grand Avenue.

Send me the MEDICAL BRIEF for 1905, for which you will find enclosed one dollar. I enjoy the reading of the BRIEF.—DAVID M. FINLEY, M. D., Clinton, Ia.

[Written for the MEDICAL BRIEF.]

Diagnosis of Disease by Blood Examination—A Clinic.*

BY ROBERT L. WATKINS, M. D.,
New York.

In these times of advanced medical science, it is scarcely necessary to call your attention to the importance of blood-examination. Physicians, and patients as well, recognize its efficiency, and have it done not once, but often.

There are two methods: the first, or old-time way, by dry or stained blood; the second, or newer fashion, the fresh blood examination. The latter is, by far, the more simple, the more practical, and the more important.

A drop of blood is taken from the wrist, placed on a glass slide, over which is put a cover glass, thus, and examined through the microscope while yet living and moving. (We will use a one-seventh objective lens.)

*Special notes and photographs taken for the MEDICAL BRIEF.

In private practice, it is my custom to take a photograph of each specimen, which furnishes a permanent record of the patient's condition on that date. My camera is permanently fixed at the left side of my office desk (Fig. 1), with my electric sterilizer on the right, and the microscope in the center.

This method of examination is open to the general practitioner. He can tell, at a glance, whether there is a normal number (Fig. 2), or a lack (shown plainly in Fig. 4) of red cells, and many of the other pathological conditions.

I will now call to your attention, chiefly, the points which can be observed by looking at the blood, exclusive of subjective symptoms.

FIG. 1. It will be easily perceived that the examiner can, by means of this apparatus, draw the blood, examine it microscopically, and photograph it, repeating the process at his pleasure without leaving his chair. B, Switch. C, Camera. D, Electric light.

This man looks about fifty-six years old. We will take a drop of blood, and, putting it under the microscope, we see that the cells are not strong. As we let this blood stand on the slide, changes take place which are important to observe. While the cells are still moving, their contour is becoming serrated. This occurring in so short a time, indicates lack of nervous energy. Still further, on moving the slide about, crystals are seen floating in the serum among the corpuscles. It is very easy to pronounce the subject as

rheumatic. When questioned, he says he is sixty years old, and has had rheumatism for thirty years, but what he comes for now is his weak condition; he has

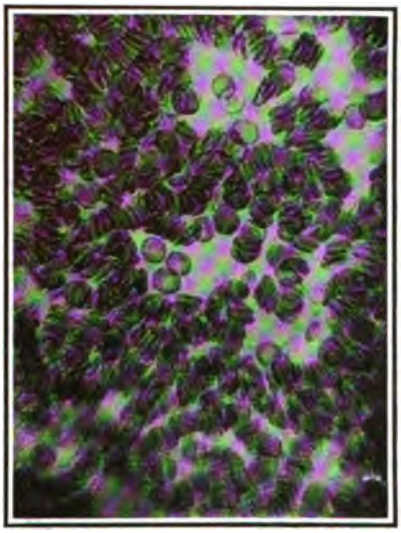


FIG. 2. Normal number of cells. Blurred cells at the bottom were moving. 1/12 obj. x 900.

no ambition. He has been working very hard, mentally. This man has rheumatism, together with his neurasthenic condition, and needs, beside treatment, a vacation. (Fig. 4.)

This is a colored man, who has suffered for six weeks with a swelling in the groin. This examination is to ascertain if it be an abscess. Blood from his wrist does not reveal any excessive white cells, so we will take a drop, from a puncture with the hypodermic needle into the swelling. An examination of this shows, also, no excess of white cells, therefore no pus, and the swelling will abate of itself.

This woman, you will note, walks with a limp. The blood shows the characteristic agglutination or stickiness of the cells, which is invariably present in rheumatism, together with crystals of urates and cystine. This case includes several forms of rheumatism, each of which would be interesting to consider, if time permitted. (Fig. 3.)

Her daughter, who accompanies her, requests a blood examination. She only desires to know if she has inherited rheumatism. The examination shows normal number of cells, evenly arranged, and of good tone. There is not even a rheumatic tendency. The only abnormal point is the eighty per cent hemoglobin.

This man is fifty-six years of age. He is very thin and anemic. His appearance and his voice would indicate tuberculosis of the lungs. For our purpose, it is sufficient to learn that he has been ill four or five years. A drop of blood is taken, as usual, from the wrist, and it shows that there is no tuberculosis whatever; but it does show that while the proportion of white to red cells is about normal, there is a lack of both, and, also, a lack of hemoglobin. This latter would be perceptible even in a photograph.

The serum is very clear, but not in excess of normal. On questioning, we find the man to be suffering from diabetes.

There are also present a great many spores of syphilis. He denies any such history, and his brother, who is present, claims for him a model life. Nevertheless, on closer investigation, it is acknowledged that such might have occurred some thirty-five years previous.

This young woman, who is apparently twenty-one years old, is brought by her

FIG. 3. The adhesive moving cells are carrying broken crystals and amorphous urates. Fibrin in the serum.

friend, Mrs. B., to see if she has incipient tuberculosis of the lungs.

You will notice, by her face, that she is slightly anemic and emaciated. The blood

shows that the cells are evenly distributed throughout the field, pretty free from granulated edges, and that there is in the serum no tuberculous matter.

Thus we know, without further evidence, that this is not a consumptive case, which greatly relieves the anxiety of herself and her friend. On questioning her, we find that she has been working very hard in her school, and conclude that she is simply run down, and in need of the vacation which she is about to take.

This reminds me of a case I examined a year ago. Mrs. T. was about to be operated upon for cancer in the large intestine, which included part of the rectum. She had been suffering, off and on, for many years. The symptoms were emaciation, loss of strength, difficult and painful evacuation, with an occasional hemorrhage. The family sent for me to examine the blood. The serum was found to contain a little yeast, together with a sticky, fibrinous material. The cells were very much stuck together, and decreased in numbers. The proportion of white cells to red was about two to three hundred. My diagnosis was catarrh of the bowels, and not cancer. I told her she would live a great many years, and certainly needed no operation. It was a great relief to her family. She is now attending to her duties, and is in better health than for many years.

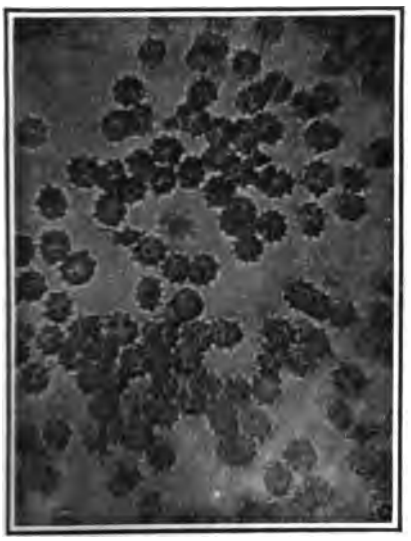


FIG. 4. Shows a field of this blood, where the crenated or weak cells are the most marked.

Mr. E. brings his bride of a few months to be examined for premonitory disease. The blood of the young wife reveals a fermentative product, together with an adhesiveness of the blood cells, which indicate a pretubercular condition. It is anemic. There is a goodly quantity of red cells—four million—and the white cells are only slightly in excess of normal. There is a slight indication of septic blood.

On questioning her, I find that the young lady has a cold sore on her upper lip, and an ulceration over two or three upper teeth. This latter she has had for the past year and a half—canker sores, she calls them; but it is pyorrhea alveolaris.

The young husband shows unmistakable evidence of rheumatism, though not pronounced, with amorphous urates in the serum.

The vitality of the red discs is good, because the contour is round and distinct. But beside these slight rheumatic traces there are syphilitic spores in abundance.

As he comes simply for his wife's examination, we will defer questions until a private interview can be had. We can probably prevent a further infection in the other half of the family.

Here is a specimen just received through the mail. I unwrap it, and take the glass slide from the case. The letter accompanying it says the patient from whom the blood was drawn had syphilis several years ago, and that he is now suffering from a cough of two years' standing, which is thought to be of a tuberculous character.

In examining for syphilis, the one-twelfth objective lens must be used. I, therefore, turn the nose piece of the microscope around, and examine the specimen.

The sender of this communication will certainly be very much pleased to learn my diagnosis—no syphilis.

Gentlemen, it costs just four cents to send this specimen to any part of the United States, so that California can be at once in touch with New York.

After all, the first and most important point in medical practice is the diagnosis. When a person becomes ill, the first question he asks is, "What is the matter?" The first thing that the puzzled physician asks is, "How am I going to find out?"

We assert that the quickest, surest, and often the only means, of diagnosis, is by a fresh blood examination, the infallibility of which relieves one from "a deep-dyed doubt of a dubious diagnosis."

Besides, a blood examination may prevent an illness, and "an ounce of prevention is worth a pound of cure."

20 West Twenty-Fourth Street.

Please find enclosed one dollar to pay for the BRIEF for 1905. The BRIEF is a welcome visitor to my office. When it fails to come, I feel like I had missed a month's chat with the medical staff. Long live the BRIEF.—F. KIRKPATRICK, M. D., Riddle, Ore.

[Written for the MEDICAL BRIEF.]

Appendicitis (So-Called) and Its Treatment.

BY J. W. C. WEST, M. D.,
Gill, Ark.

This novel complaint, of late years, has opened up a new avenue for much thought—and a great deal more should be given it than has been by the general practitioner. For several years I have given this disease (appendicitis, so-called) much profound consideration, coupled with several well developed cases for close observation and practical demonstration by medical treatment, and that successfully, etc. Now, I would not have my professional brethren believe and understand me to be absolutely against surgical interference; but go slow, with a more serious consideration in diagnosis—for one-half or two-thirds of so-called cases of appendicitis will recover from well directed medicinal applications, as I hope to prove by a few well defined cases, with treatment for same.

Case 1.—Mrs. L., age fifty-five, mother of several grown children, was taken ill with rigor, followed by fever, with pain over appendix and entire abdominal tumefaction, with constipation. Was treated by Dr. H. one week—diagnosed appendicitis; operation suggested; county-seat surgeon called, confirming diagnosis, and operation proposed. Family objecting, the case was dismissed and turned over to the family. At this period I was called in. The case looked hopeless, as two weeks had elapsed, and unconsciousness had been added to the above symptoms. I now began treatment by sponging the entire abdominal walls with warm water, flannels wrung out of same and thoroughly saturated with castor oil and applied, covered with folded towel to retain heat, which was followed by thorough evacuation of intestines with a partial return of consciousness. At this juncture I gave bromidia, to control pain and jactitation; tr. aconite and spr. nitre dulc. to conquer fever; gave salines per mouth now until I obtained a complete cleansing of the intestines from all offending fecal matter, which I deem a prime factor in a major part of those diseases named or styled appendicitis nowadays. This case was dismissed in four days—well.

Case 2.—Mrs. L., age thirty-five years. This subject had been sick for several weeks, under the care of two physicians, with symptoms like unto case first, except she retained consciousness throughout her entire illness. Case not improving, physicians were dismissed. The case fell into my hands. I placed her on same treatment as first case, with like results, in eight days—well.

Case 3.—Mr. H., age twenty-five years. Had been under treatment for one week by Dr. McM. Had three other doctors of good standing who confirmed the diagnosis—appendicitis. All recommended operation, refusing to give any other treatment, and left the case. Patient then fell into my hands. Put him on same treatment as case numbers one and two, with entire recovery within one week afterward.

Now, these cases had no relapses, as they were under my supervision for one year after treatment.

Enclosed you will find check for two dollars for the MEDICAL BRIEF for two years. The BRIEF is certainly a brilliant journal.—G. P. KINGSLEY, M. D., Madison, Wis.

[Written for the MEDICAL BRIEF.]

Education.

BY R. M. JACKSON, M. D., LL.B.,
Omaha, Neb.

"Mankind have a great aversion to intellectual labour; but even supposing knowledge to be easily attainable, more people would be content to be ignorant than would take even a little trouble to acquire it."—Johnson.

Many States have enacted compulsory education laws, and any number of thinking individuals have questioned the wisdom of the legislatures which enacted them. Would it not be well to ask ourselves seriously what can be accomplished by compulsory laws? Can laws compel individuals to be educated? What is education? Suppose an individual can read and write, does it follow that he is educated? Suppose that one holds a university degree, would even this prove that its possessor is educated? I do not think so. The individual who is anxious for a true education must educate himself. In other words, he must study, observe, compare and think. A faculty of professors teach what they have been taught and what they discover or think about themselves, and no more; sometimes less. I say less, because I have in mind a few thinking gentlemen who were dismissed from various institutions on account of expressing their personal opinions. Think of it, men pass compulsory education laws that every one may be "educated," and yet State as well as private institutions dismiss teachers for teaching those who are compelled to acquire an education. True, the compulsory education laws do not apply to higher education; but, if I am forced to attend a primary school, have I not the right to force myself into a higher one, and learn all the professors thereof know or think about? Says the Catholic institution to its professors: "You must teach this, that and the other, and no more." And, if a professor teaches more, he is instantly dismissed. Ditto the Presbyterian; ditto, the Baptist; ditto, the Methodist; ditto, the Jewish; ditto, the institution controlled by Republicans; ditto, the institution controlled by Democrats, etc. Take history as taught in Southern and Northern States respectively, and they vary on essential points. Professor Ernest Haeckel, of Germany, complains that he is not as free to express his thoughts at the University of Berlin as he is at that of Jena. Surely, there are motives for all this limitation of freedom to express thoughts. I well remember a Professor Allopath, who talked to his class about homeopathic and all other schools as if their mission was to turn out cut-throats and murderers. The American Confederation of Reciprocating, Examining and Licensing Medical Board has "resolved" that, as a prerequisite to "reciprocation," the physician who prays for a reciprocal reciprocundity must submit a certificate to the "reciprocationists," to the effect that the "reciprocander" has been, for at least one year, a member of a county, state and national medical association of the school or system to which he belongs. How does this "resolve" sound to you as compared with the "resolve" of the fellows who, as a prerequisite to their granting a passport to "heaven," one must belong to their church; must believe in all that is written in a certain book; must confess periodically what—never mind what; must contribute the "Peter's pence," the widows' mite, and other mites? At any rate, if our ancestors should come back to life they would find themselves in our midst, and I fear me much they would mock us—aye, give us the laugh. They would point out our respective degrees of idiocy and say—well, what would not they say? We have all heard the expression, "If Moses, or Christ, or Mohammed, or Luther, or Washington, or Jefferson, or Lincoln, or Emerson, or Channing, or, or, or, came back to life again!" Imagine what these respective gentlemen would not say, because we can easily guess what they would say. But to return to the subject—education. Education! Does the reader conceive how much this word education involves? I can not; aye, it seems to me almost unthink-

able. The limit of education is akin to limits of time and space. Who can conceive of a boundary line where space ends, and the point from which time travels, not farther? It is unthinkable! We speak of education in a sort of pedantic fashion, because we forget (our memories always betray us) that what is considered knowledge to-day is nothing but ignorance to-morrow. Also, when an individual says "Damn History," that that mortal being is ignorant to-day of what took place yesterday.

One of the subjects with which we ought to be most familiar and ever remember is history; yet it is the quickest forgotten. One is careful to be familiar with and strives to remember the multiplication and division and addition tables; yet the fact is that some were burned at the stake for uttering truths, and others were disemboweled or their bones were broken for denying human infallibility. Most human beings forget almost the moment they hear of or read such incidents in history. The word education is hard to define so as to include knowledge and wisdom; because our knowledge is necessarily limited (who knows whether there are in fact other worlds than ours? Who knows what the future has in store for this world?) and our wisdom, including that of every "Pope," is far from infallible. Says a writer, "Instruction and breeding are to education as parts to a whole; the instruction respects the communication of knowledge, and breeding respects the manner of outward conduct; but education comprehends not only both these, but the formation of the mind, the regulation of the heart, and the establishment of (sound) principles." In other words, an education comprehends good instruction, because it teaches us what others know and think about; good breeding, because it makes us more agreeable. An educated man learns from every source whatsoever, always thinks for himself, and ever concedes this right to his fellow men. He believes in and fights for freedom, independence and progress. In freedom, because he can develop socially and politically; in independence, because his opinions may be sounder and more consistent with truth and justice than those of some "ruler;" in progress, because he can develop intellectually. Some physicians have been anxious to curtail the freedom and independence of their confreres and have thereby enslaved themselves. Now, they have to bow to "rulers," and not only this, but pay for the privilege to bow. This is not in harmony with education, however limited we may understand its meaning. I am not unmindful of the fact that we learn, to a certain extent, from associating with one another, but I have yet to find out that men do learn something in associations in which the multitude who seek knowledge are being exploited for the benefit of a few. No one can be more willing to pay his respects and render homage to intellectual leaders than I am, but I am entitled to freedom and independence, and to think for myself. If I am a "little fellow," hence not up to an imaginary standard, I am anxious to learn; because I am conscious that in the great struggle for existence merit alone counts. But I humbly object to being legislated into all kinds of hardships, because this cuts off my opportunities to progress socially, politically and intellectually.

I hear some medical politician remark: "We are trying to build up and you are tearing down." To which I respectfully reply: You are not "building up" as if you were disinterested. On the contrary, methinks, that you are somewhat of a government contractor. A government contractor "builds and builds," and, by the time the roof is finished, the government has paid several times over what an individual would have had to pay for a like structure—wait a minute, and, when the government has made the last payment, the building is almost ready to collapse. Methinks that the medical politicians are "building up and up" (?) the profession and, by the time they will put on the finishing "touches," that is, by the time they will have fettered every possible chain of tyranny and extortion around the fraternity, at least that part of it which contains the ninety or more per cent of "little fellows" (general practitioners), a majority of them will have

to seek other occupations. That is my humble opinion; and, considering the complaints of many physicians that they do not earn a livelihood at present, my opinion, while not infallible, has, in my estimation, some foundation in fact. From which follows that, while the medical politicians are "building up" sinecures for themselves and more and more assume autocratic powers by means of concentrating them into the hands of as few as possible, the profession is, in fact, torn down. Because the fraternity is now divided into classes, viz., specialists, politicians and "little fellows." The specialists have enacted a "code of ethics" which they violate with impunity and use as a club against the "little fellows;" the politicians have passed laws which, under the plea of "consultation," permit those who "know it all" to go from place to place, and the "little fellows" must not even go beyond a certain imaginary line; if a "little fellow" does want to go beyond an imaginary line, he must (1) pay a stiff fee which the politicians pocket; (2) submit a "passport" that he belongs to "a certain class;" (3) that he is of a certain pedigree which is ascertained from a blacklist; and, last but not least, (4) must believe in the "code of ethics" and belong to the association which enacted it. This, gentlemen, is not education, but tyranny and extortion. Remember, please, that "a kingdom (or family) divided against itself can not stand." Inasmuch as I speak to my own family, permit me to make a statement: The politics of the medical profession are very nearly alike with the politics of the Catholic organization during the Dark Ages, but that was not enough for the priests,* so they allowed Ignatius Loyola to "build" further, thereby enhancing the powers of the Catholic hierarchy. See the consequences. "Power will intoxicate the best hearts, as wine the strongest heads. No man (nor set of men) are wise enough nor good enough to be trusted with unlimited power."—Colton.

*Taking an organization in which a few have autocratic power, they become intoxicated with it and forget their duties toward confrères in particular and the public in general. Two instances worthy of mention are: *Nero* who burned "built-up" Rome, and Ignatius Loyola and his followers who undermined the "built-up" Catholic hierarchy.

Past and present history prove the same thing over and over again, yet man heeds not. Man! Education! Two words that no mortal being can fully comprehend. They are part and parcel of the world, and like the mysterious world itself, are incomprehensible and undefinable. Man is full of intellectual light, yet he is content to keep the rays within himself. He can be as free as a bird, yet prefers to be a slave. He is like a shadow always following.

"See him from Nature rising slow to Art!
To copy instinct then was reason's part;
Thus then to man the voice of Nature spake—
Go, from the creatures thy instructions take:
Learn from the Birds what food the thickets yield;
Learn from the Beasts the physics of the fields;
Thy arts of building from the Bee receive;
Learn ! the Mole to plow, the worm to weave;
Learn om the little Nautilus to sail,
Spread .he thin oar, and catch the driving Gale.'
—POPE.

311 Ramge Block.

After having examined a copy of the MEDICAL BRIEF. I decided it would be a help in my practice, for which herewith find enclosed one dollar for one year's subscription.—J. G. SMITH, M. D., Nevada, Texas.

[Written for the MEDICAL BRIEF.]

Oxygen in the Treatment of Diabetes.

BY ROBERT A. GUNN, M. D.,
New York City.

It is not my purpose in this article to discuss the causes or symptoms of diabetes. The impaired nutrition is apparent in the early stages, and the other symptoms are easily recognized, even though the nature of the predisposing causes are not definitely known.

For the purpose of treatment it is immaterial whether there is an over-production or under-consumption of sugar in the system; but it is important that we should get rid of the excess, which causes the malnutrition.

A careful inquiry into the history of diabetic patients will usually show a condition of defective oxidation of the blood. This led me to recommend the inhalation of oxygen in these cases, and a

report of a case treated in this way will illustrate the results obtained.

Mr. R. C., a merchant, thirty-five years of age, of an active, nervous temperament, consulted me in June, 1900, after having been under the care of several other physicians.

He said he had been under severe mental strain for the two previous years, on account of business losses and family difficulties. His usual weight had been about one hundred and eighty pounds, but in six months after his business troubles began he had lost twenty-five pounds. He had the usual symptoms of excessive thirst, enormously increased flow of urine, loss of strength and the presence of sugar in the urine.

When he consulted me his weig. t was one hundred and thirty pounds, and the urine contained acetone and nearly three per cent of sugar. His breathing was restricted so that the expansion of the thorax on full inspiration was less than two inches.

He had been following a rigid antidiabetic diet for over a year, and had massage treatment of the muscles three times a week for several months.

I told him that he should increase his lung capacity by breathing exercises, and ordered him to inhale oxygen several times a day. I also recommended the use of faradic electricity, applied once daily over the entire body, so as to bring all the muscles into action. He supplied himself with two tanks of oxygen gas, one of which he kept in his residence and the other in his office. This he inhaled regularly for five or six minutes at a time, every hour, so that he took on an average about ten inhalations a day. In a month's time he noticed a marked improvement and began to gain a little flesh. The quantity of the urine decreased, his thirst diminished, his strength improved and the sugar was reduced to less than two per cent. He continued the oxygen inhalations for four months, at which time the sugar had disappeared, as well as the other symptoms that had been so pronounced. In that time his weight had increased to one hundred and fifty-four pounds, the chest expansion was four and one-half inches, and he was able to attend to his business without fatigue.

Of course, he continued to exclude the carbohydrates from his diet, and for a time he took an elixir of pepsin, bismuth and strychnine to improve his digestion.

At the present writing he weighs one hundred and seventy pounds, attends regularly to business and has had no recurrence of the diabetic symptoms. He still keeps a tank of oxygen at his residence, and whenever he goes home fatigued, after a hard day's work, he takes two or three inhalations before bedtime. I have every reason to consider this a cure, and I attribute it to the oxygen inhalations.

I have treated other cases in the same way with equally good results, and believe it to be the most rational treatment of diabetes. The increased oxidation of the blood undoubtedly burns up the excess of sugar that has not been consumed by the tissues, and thus removes it from the system. In my opinion, this excess of sugar clogs the absorbent vessels, and thus prevents the nutritive material from being carried to the several tissues from the blood. With the increased oxidation the lymphatics are freed from obstruction and normal nutrition is re-established.

If such results can be obtained by inhaling an increased amount of oxygen for a few minutes at a time, at intervals of an hour, how much better results might be obtained if a diabetic patient could sleep for several hours in a chamber containing double the amount of oxygen that is present in the atmosphere. It is reasonable to suppose that sleeping in such an atmosphere every night, would more rapidly oxidize the excess of sugar in the system, and thus work a more rapid cure than occasional inhalations of oxygen.

Here, then, I claim another application of the advantages of my artificial air chambers, as described in the MEDICAL BRIEF for November, 1904. Let the diabetic patient sleep in this chamber six or seven hours every night, and thus breathe the extra oxygen without any effort, and we are sure to have sufficient oxidation to remove all effete material, including sugar, from the system and to restore the normal nutrition of the body.

I expect to be able to report a case treated in this way in the near future, and I shall faithfully record the progress of the case, and the results obtained for the benefit of the profession. In the meantime, no matter what treatment is followed, it should be supplemented by frequent and continued inhalations of oxygen.

Enclosed please find one dollar bill for the BRIEF for 1905. Must have BRIEF—can't do without it. I look for it as often as I do my meals.—H. B. COBLENTZ, M. D., Washington, D. C.

[Written for the MEDICAL BRIEF.]

A Brief History of Modern Surgery.

BY E. J. KEMPF, M. D.,
Jasper, Ind.

During all the ages up to the present time, surgery was considered to be a part of the healing art relating to external diseases, or those subject to treatment by mechanical or operative measures, and to injuries of any part or organ, their treatment, and the operation adapted for their cure. Formerly surgery was entirely a mechanical art, and was practiced by barbers and other uneducated persons; later the art of surgery was dependent more on anatomy and practical efficiency; to-day, surgery is a science based not only on anatomy, but also on an intimate knowledge of all the other branches of the medical sciences.

Up to the time of Hunter (1728-93), surgery, and indeed, medicine, were based in their practice almost entirely upon tradition and dogma. Hunter, by his labors in the direction of anatomy and physiology, lifted medicine from the obscurity of philosophical doctrine to the firm foundation of facts and imparted an impulse that is still felt and is still in evidence in the methods of research employed to-day in the fields of comparative pathology and experimental medicine which promise most for the advancement of the medical and allied sciences. From Hunter's period to the introduction of anesthesia there is no remarkable fact in the development of surgery. It is the object of this paper to give a brief review of the vast advancement made in the science and art of surgery during the last hundred years.

In 1867, Joseph Lister first published his experiments on the antiseptic treatment of wounds. He thoroughly appreciated the work of Pasteur, and applying his theory to the process of healing, recognized that living organisms must be excluded from wounds. On this basis he founded a system of antiseptic surgery which has almost done away with pyemia, septicemia, gangrene, etc., and greatly reduced the mortality in hospitals. Statistics show that in 1861, in the hospitals of Paris, there were three deaths resulting from each five cases of amputation, and the state of affairs in Great Britain, Germany and Austria were almost as bad. After Lister's introduction of his methods into his hospital wards at Glasgow, the death rate after major amputations fell from forty-five to fifteen per cent in two years. Later it fell still lower.

In the earlier years of antiseptic surgery the results were not as good as they are now, which is due to the great improvements made in the technique of operative surgery. In 1881, Professor Koch, of Berlin, announced to the scientific world that perchloride of mercury or corrosive sublimate was a more powerful antiseptic than thymol, eucalyptus oil, iodoform, boric acid, salicylic acid and carbolic acid, which are all still in use at the present time, depending on the nature of the field of operation. Corrosive sublimate and carbolic acid are, however, the remedies modern antiseptic surgery depends upon. The hands, the clothing, the instruments of the operator, his assistants, the dressings for the wound, the operating rooms and the atmosphere are carefully cleansed or sterilized before an operation is performed, and such treatment is called aseptic, and enables the operator to dispense with disinfecting the wound with strong chemicals, unless the wound is already an infected one. Armed with antiseptics, or with the newer aseptic methods, the surgeon can perform feats which were scarcely imagined half a century ago.

Antiseptics have revolutionized surgery in the nineteenth century, and have placed it on a higher plane than internal

medicine will be likely to occupy for another century. Antiseptics have really made a new science of surgery, so much so that antiseptic surgery is the name given to it by some of the authorities of medicine. The principles and practices of modern antiseptic surgery have reached such a high plane of excellency that it is a question whether surgery has not reached its limit of perfection as a science.

There is a distinction without a difference between aseptic and antiseptic surgery. The former includes a series of measures calculated to absolutely exclude every living germ from lodgement on the surface of the wound by making the patient surgically clean, and to prevent living germs from reaching the wound by making the surgeon, the assistants, the surroundings, the instruments and the dressings surgically clean or sterile. The latter depends more on the destruction of germs by means of such remedies as corrosive sublimate, carbolic acid, iodoform, etc., although it includes all that we have mentioned in the definition of aseptic surgery. The antiseptic methods are based on the germ theory or fermentation and putrefaction, and antiseptic methods should be followed, because thereby we exclude bacteria from wounds, and so avoid putrefaction. The forms of antiseptic surgery as practiced by different surgeons of the various civilized countries of the world may vary, but, of course, the principles of antiseptic surgery are always the same.

In former times, blood-poisoning and other terrible results used to follow almost unfailingly certain sorts of wounds. Simple fractures in which the skin was unbroken used to heal easily and well, but if there were even a slight break of the skin, the wound would fester and cause great trouble. Amputation was considered necessary in numerous cases which the surgeon of to-day finds simple. Such amputations were followed appallingly often by gangrene or other putrefactive processes, because the basis of modern surgery, the study of bacteriology, was neither understood nor appreciated.

Diseases of the bones and of the joints, diseases of the organs of the chest and of the abdomen, injuries and diseases of the skull and of the brain, injuries and diseases of the spinal column, are wonderfully dealt with. Humpbacked people are straightened, club feet are made symmetrical by the use of the knife applied to contracted tissues or misshapen bones. Bow-legs and knock-knees and other deformities of the limbs are straightened by the surgeons cutting boldly across the crooked bones, putting them in proper position and ensuring their correct growth by encasing the limbs in an immovable dressing, and leaving them to nature. If a fracture refuses to unite, or is of a complicated nature, the surgeon cuts down, under antiseptic precautions, and drills and joins the broken bones together.

Ligation of Large Arteries.—The United States has led the way in the ligation of the larger blood vessels. Some of the Americans who have gained distinction by the performance of such feats—each one of which was a triumph in surgery—are: Amos Twitchell (1781-1868), first to tie the primitive carotid artery; William Gibson (1784-1868), first to tie the common iliac artery; John Syng Dorsey (1783-1818), first to tie the external iliac artery; Valentine Mott (1785-1865), first to tie the arteria innominata; J. Kearmey Rodgers (1793-1857), tied the left subclavian artery between the scaleni in 1846; John Murray Carnochan (1817-1857), ligated the femoral artery in 1851; Hunter McGuire tied the abdominal aorta in 1868, which, however, had been accomplished in 1817, by Sir Astley Cooper, an English surgeon.

Operations on the Nerves.—In dealing with nerves, the modern surgeon has none of the dread which forbade the old-time practitioner to touch them. Nerves are spliced and sewed so that evil results from accidents to them are entirely prevented; and for the cure of obstinate neuralgia, surgeons actually penetrate to the root of the disease in the spinal column or the skull, that is, the spinal cord or the brain. In 1856, John Murray Carnochan performed the exsection of the superficial maxillary nerve beyond the ganglion of Meckel.

Skin-Grafting.—Skin-grafting is another performance of the nineteenth century surgeon. Ulcerated or otherwise diseased surfaces on a patient's body are

supplied with healthy cuticle transplanted in small parts from other parts of the human person or other individuals—and injuries which were formerly incurable are thus now readily healed. The French surgeon, Reverdin, is especially celebrated in connection with skin-grafting on ulcerated surfaces.

Brain Surgery.—The modern surgeon does not hesitate to remove tumors from the brain, after locating them from the accompanying symptoms. The skull is opened for the purpose, as well as for the stopping of intracranial hemorrhage, and for the treatment of intracranial abscesses; and, in traumatic epilepsy the operation of trephining has been performed to remove the pressure on the brain. Professor Mathew Kempf, of the Kentucky School of Medicine, performed this operation successfully in a case of traumatic epilepsy in 1876, and reported the case fully in the Cincinnati *Lancet* and *Observer*. This surgeon also successfully tied the external iliac artery for an aneurysmal varix of the femoral vessels in 1875, the patient still living, in 1902; he performed the radical cure for inguinal hernia in 1876, the patient still remaining cured in 1902; he removed a tumor from the stomach in the year 1867, the patient dying the day after the operation; and he removed necrosed ribs from a patient for empyema in 1866, the patient living many years afterwards. Most of these cases were reported in the *Louisville Weekly News*, Professor Cowling's paper.

Surgery of the Thorax.—The thorax is penetrated by the modern surgeon for various reasons, sometimes for banishing empyema, and sometimes for operations on the lungs, on the pleural cavity, or on the ribs, or for tumors. A wound of the heart has been considered absolutely fatal, throughout all the ages, but Dr. Rehm, of Frankfort-on-the-Main, successfully demonstrated that such is not the case. He sewed up a cut in the heart occasioned by a knife-thrust, and his patient recovered. Thus the very "tripod of life," as Bichat called the brain, the heart, and the lungs, are the field of modern surgery, and the surgeon over and over saves a life by his surgical skill where death was the only chance.

X-Ray.—Probably the most recent advance in surgery of great moment was the discovery of the X-ray by Roentgen, and its use in surgery, mainly in diagnosing a hidden injury or disease. F. S. Kolle, a prominent specialist in radiography, gives eight uses to which the X-ray can be applied in medicine and surgery. They are: To study anatomy; to preserve the relations of fragments in fracture of the bones; to study and diagnose its locations; to study and diagnose diseased bone; to diagnose anchylosis of joints; to locate foreign bodies, *i. e.*, bullets, needles, wood, etc., in flesh or bone; it is of diagnostic value in cases of tumors or enlargements of inner organs, such as the spleen, liver, kidney, heart, etc., and perhaps, in obstetric diagnosis.

The First Aid Packet.—The first aid packet, for the introduction of which the world is indebted to Esmarch, of Germany, is of vast importance, especially in case of war after a battle has taken place. At the suggestion of Esmarch, the German soldiers who took part in the Franco-Prussian war of 1870 were supplied with what was know as Esmarch's triangle, the forerunner of the modern first aid packet.

This packet has been sterilized, *i. e.*, steamed or exposed to heat great enough to kill all germs, before it is sealed, and the packet is never opened until needed. The soldiers who took part in the campaign around Santiago, July, 1898, were supplied each with a first aid packet. Notwithstanding the terrible tropical climate and the lack of proper shelter, from sun and rain, there was never before less blood-poisoning from infected wounds, and this happy result was due wholly to the use of the first aid packet.

Suture of the Veins.—Suture of the veins was first attempted by Nicaise, in 1872, since when it has been done about a hundred times. Clermont reported a case upon which he operated for tubercular cervical lymphadenitis. As he had separated the internal jugular vein, he applied temporary catgut ligatures, while he sutured the opposing edges with fine silk. This healed well. The lateral and circular suture can only be attempted in large veins. A round needle and fine silk are needed. Clermont thinks that from

this now simple operation it is but a step to suturing the wall of the heart.

Adhesive Plaster.—Howard Lilienthal, M. D., of New York, introduced a method of closing all wounds, however large, whether on the abdomen, or after amputations of the hip, removing of the breast and large tumors, by means of adhesive strips previously sterilized, doing away with external silk sutures altogether. The advantage of this plan is supposed to be the impossibility of the occurrence of stitch abscesses. This method can, however, only be used in perfectly aseptic operations, and for this reason it is not likely to come into use in country practice, where the risk of a faulty technique always exists.

Recent Advances in Surgery.—The advances in surgery during the last few years have been very important, according to Dr. Wm. Rodman, a Philadelphia professor of surgery. In the first place, our means of diagnosis have greatly improved. A better technique in the Roentgen rays has enabled the careful and skillful applicator not only to avoid disagreeable burns, but also to make better discoveries of fractures and dislocations, the localization of bullets, and the mapping out of some of the soft tissues, both in health and disease.

Gall-stones, aneurisms, and the tumors of soft tissues as well as bone, are no longer elusive, but may be recognized by one skilled in the use of the instruments producing the X-rays. Improvements have also been made in the Roentgen rays not only of diagnostic import, but also of a valuable means of treating lupus and epithelioma, as many cases of the former and a reasonable number of the latter have been permanently cured by their use. When we reflect that cancer is alarmingly on the increase all over the civilized world, any method which makes possible an earlier diagnosis in some cases and supplies a means of successfully treating others is indeed an inestimable boon. Calculi in the lower third of the ureter can be located by the Roentgen rays and surgically removed, under the modern aseptic surgery.

Substantial advances have also been made in the past few years in the treatment of appendicitis and strangulated hernia; the stomach has been successfully operated upon, ulcers being surgically treated in cases of alarming hemorrhage from the stomach, and cancers of the stomach are safely removed, aye, indeed, even the entire stomach. However, we are still impotent in the treatment of malignant neoplasms, tetanus, hydrophobia, anthrax, actinomycosis, and rapidly spreading gangrene.

The Modern Surgeon.—The modern surgeon is thus described by Dr. J. H. Carstens, of Michigan: "He must be a well-educated physician, must have been a general practitioner, and a good therapeutist. He must take up surgery early and gradually develop a surgical hand; he must have been an assistant to a first-class surgeon for at least a year, where he will see hundreds of operations of various kinds."

The Requirements of Modern Surgery.—The requirements of modern surgery Carstens summarizes as follows: "(1). A patient brought to the highest state of resistance to microbic influence of infection and made as clean as possible. (2). An operating room, preferably in a hospital, where everything has been made thoroughly sterile; this includes anesthetizers, assistants and nurses. (3). A surgeon with a mechanical hand, and has received a long and thorough training." Surgical dressings, sutures and ligatures, etc., used in the dressing of wounds are preferably prepared by experts in a well-equipped laboratory.

(To be continued.)

[Written for the MEDICAL BRIEF.]

How the Indians Cure Lock-Jaw—A Fact Intertwined With Romance and Therapeutics.

BY J. ZACHARY TAYLOR, M. D.,
Baltimore, Md.

About the year 1830, a promising young man left the eastern shore of Maryland to settle in the State of Missouri. At that time the migrating fever had set in, and many farmers and mechanics pulled up stakes in Maryland to make their homes in Indiana, Illinois and Missouri. Before making up his mind to leave home, he had gotten all ready to enter college, when an

unforseen trouble overtook his father, who, in order to save his valuable estate from being sold for a security debt, which he had to pay, deprived the son of the cash with which to further his college course. Being energetic and ambitious to make name and reputation, he concluded that the best and quickest way to do so was to go West. So, bidding his parents and sweetheart an affectionate and loving good-bye, he mounted his horse and rode away. During his travel of many hundreds of miles he saw much that interested him, and met with no little rough experience.

When he entered the State of Kentucky, he sought out a rich uncle, and upon arriving at his place of residence was received with open arms. The uncle was so pleased with his nephew that he insisted upon his staying, promising him his fortune at death. This the nephew consented to do after long persuasion on the part of his uncle and aunt, the wife, as they were childless.

The first Sunday in the town he accompanied his uncle and aunt to church. He was told that an accomplished young lady would be there that they were more than anxious for him to see, and if favorably impressed to have him meet her. The services being over, the church-goers left the house of God for their respective homes, and in passing down one of the principal streets, his uncle pointed out the young lady in question, and while he was casting "sheep-eye glances" at her across the street, his feet slipped out from under him, and down into a cellar that was being dug out of red clay he went end over end. Imagine his chagrin and shame, when he crawled out, his nice black clothes covered over with red clay that had been made into a putty of mire by the rain that was then falling. Upon reaching the home of his uncle, he said that that was a bad omen, and he would remain no longer, but make a start for Missouri.

Finding the young man's mind made up, his uncle gave him a well filled purse, and the next morning he began his journey.

At a certain town, now a city, in the State of Missouri, he made up his mind to stop and begin the study of medicine, as he wished to become a physician. One of the most successful physicians in this town was a half-breed Indian, and this young Marylander applied to him to be his instructor or preceptor.

This half-breed Indian doctor had had the advantages of good city schools, and had spent several years at a certain medical college and hospital. Leaving the college, he went back among the tribes of his own blood, to learn all he could that instinct and Nature had taught his people of successfully treating and curing diseases. With a storehouse of valuable knowledge gotten from his tribesmen, he felt that he was able to cope with competitors in the field of medicine, and leaving them he located in the rapidly growing town where our Eastern shore hero found him.

During the following year his preceptor, the half-breed Indian doctor, was assassinated in cold blood by an outlaw, and this put an end to the young Marylander's studies for the time being. But our young friend had learned much—much that physicians in Eastern cities would have esteemed with great favor and value.

Getting homesick and love-sick, he concluded to return to his native heath, the eastern shore of Maryland.

On his return trip, he called by to see his uncle, who gave him a purse of ten thousand dollars with the proposal that if he would come back to Kentucky and live he should be the sole heir to his fortune.

The young man is back on the Eastern shore, and his work is so marvelous that the whole territory learn of him and send for him from far and near. It is now that jealousy on the part of other physisians begins to show itself; for on more than one occasion he cured cases that were given up to die by other doctors.

Among the diseases that he learned to treat successfully from his Indian preceptor were dropsy, asthma, flux, lock-jaw, etc. In fact, the jealousy on the part of physicians was turned to hate, and one wonders now how he ever escaped assassination; but being a fearless fellow, as most all men are who ever lived on the frontier, he paid but little attention to his enemies.

There was a severe case of lock-jaw in his county, which had baffled the skill of all the doctors for many miles around, and they, after exhausting their skill, informed the owner of the old negro that he could not possibly live, and that death was only a question of a brief time.

The owner of the old darky had heard of the young doctor from the "West" and of his marvelous skill. He sent for him. He went in answer to the call and cured the negro slave. After this, so intense was the feeling against the young doctor by the physicians within knowledge of the fact, that they proposed to have him arraigned before the Circuit Court on the charge of *"being in league with the devil."*

These physicians (and I am ashamed to tell it) had him cited to appear before the Court to defend himself. The physicians making the charge were highly educated and intelligent, and the Court was presided over by one of the most learned jurists in the State of Maryland. This citation to appear in Court on the charge of *"being in league with the devil,"* was made in the vain hope of compelling the young doctor to tell what he did to cure the old negro of lock-jaw. This procedure was rotten and base; for if the doctors had allowed their prejudices and jealousies to depart, and had gone to the young doctor in a professional and honorable manner, he would certainly have made known to them the secret; but after doing as they did, it so maddened the young doctor, and so irritated was he at their damnable treachery and indignant assault under cover of the courts, that he refused to even make known what he did to cure the lock-jaw, except to his wife, and she to me.

The doctor stood before the Court and gave his testimony. The old negro was called to tell what he knew and what was done by the doctor to cure him. Looking at the Judge and then at the young doctor that had cured him, he said: "Mistah Jedge and gemmen, de doctors who fust treated me sed I had to die—de doctor yonder (pointing to the young hero) he cued me, and telled me nebber to tell what him did, an ef I done tell it and should tuck sick agin, he wuld nebber tend me enny moah. Now den surs, ef you wuz in my fix, and had to die, and annudder cumes long and saves your life un condishuns, wud you tell? Den surs, you may kill me befo' I'se tell what he dunn."

After viewing the facts in their proper light, the learned judge dismissed the case, and congratulated the young physician, telling him that this "was a land of the free and the brave, where he had as much right to practice medicine unmolested as any other physician in the land."

The physicians who were foolhardy enough to trump up such a charge in order to find out what had cured the old negro, were loudly denounced by the public, who had by this time taken sides with the hero of this true story. This court affair was the making of the young physician, and he actually killed himself from overwork before he reached the age of fifty-four years.

The hero of this story married one of the most beautiful and lovable young ladies on the Eastern shore, and raised up a family proud to refer to the days of his sufferings and triumph.

I am now at liberty to reveal the secret of cure that saved the old negro from death by lock-jaw. On arriving at the home of the negro, and after a careful examination of the case, he saw that no time should be lost. The first thing he did was to break out several of the front teeth of the old darky so as to get the medicine into him. This would not have to be done now, as we possess facilities of injecting medicines under and through the skin without resorting to the mouth. After breaking out his front teeth, he held the old darky's nose, and poured the medicine into his mouth, then slapping his hand over his mouth, in order to breathe, the old darky had to swallow.

The medicine consisted of lobelia tea and brandy, the selective action of which is easily understood by intelligent physicians, who know how lobelia affects a patient. After giving him a good sized dose of the above relaxant, he had him dipped into a large barrel of hot water (not hot enough to scald). Into this he was kept fifteen to thirty minutes, and then lifted out, laid flat on his face on a plank, the ends of which rested on two chairs, and a flannel doubled up several thicknesses was laid over his spine, and

this was ironed with a hot iron for half an hour at a time. If the first course failed to unlock the jaws, the same was repeated. Seldom the third trial was necessary. When the jaws unlocked, the treatment was kept up as the wisdom of the doctor felt was necessary to prevent a recurrence of the terrible disease. The lobelia, which relaxed the convulsed muscles, the hot water dip, and the ironing of the spine (the seat of reflexes), go to teach that if a better treatment, and a sure one, has ever been found, I would like to know it. From the time this secret was made known to this physician up to the time of his death, it never failed in his hands. Seventy-five years ago he brought the secret from the "West," and for the first time it is now public property.

545 N. Carey Street.

I enjoy the BRIEF very much, so please send it another year. Enclosed I send one dollar.—GEO. H. GRIMMELL, M. D., Jefferson, Iowa.

[Written for the MEDICAL BRIEF.]

Specific Treatment of Dropsy; or Anasarcin in Dropsy.

BY R. R. STOCKARD, A. M., M. D.,
Columbus, Miss.

Impelled by philanthropic motives and a sense of obligation to the profession for practical hints and clinical observations I direct (or invite) the attention of your readers to a new preparation called anasarcin, in the treatment of all forms of dropsy.

For the past three years I have been prescribing this combination of cardiac tonics, diuretics and eliminants in the treatment of that pathological complexity of morbific conditions (anatomical lesions and histological changes) which may cause edemas, ascites and general anasarca, with results very gratifying and well-nigh miraculous when compared with results under other plans.

My first experiment was made with a sample sent me by the manufacturers, in

Case 1.—Lucinda B., aged forty years, the wife of a negro farmer, the mother of fourteen children, became suddenly and enormously bloated three weeks after the birth of a child. Her husband said: "She could not walk or lie down and that she looked a sight all over." I could not see her and did not think it mattered much, as I supposed she had either acute Bright's or some form of septicemia which would kill her in a few days, but I gave him a half box (thirty-five) anasarcin tablets with directions for one tablet every three hours beginning each day at noon (twelve, three, six and nine P. M.), followed by a drachm of magnesium sulph. in a tablespoonful of water next morning. Two weeks later she surprised me by a visit to my office, and when asked what had gone with her dropsy, replied: "Them brown buttons you sent me took it out of me." The completeness of her cure seems established by the birth of her fifteenth child during the next year.

Case 2.—Celia S., aged forty years, seamstress, gave history of what she called rheumatic grip in February, 1904, and before she got over that began to bloat all over, growing steadily worse under a doctor's treatment until the 10th of June, when her family lost faith in her attendant and had me called to see her. Found her propped bolt upright in bed breathing in a jerky, gasping way, much exhausted by loss of sleep and anorexia. Analysis showed only a trace of albumen. I gave them a favorable prognosis and began treatment with elaterium and comp. jalap powder followed by anasarcin tablets in the usual way; which latter was continued uninterruptedly for six weeks, when she had so far recovered as to return to her regular work. She has since taken pomegranate for tape worm, bringing away the head, and is now apparently in good health.

Case 3.—W. L., a merchant, aged fifty-four years. Family history good, his health and habits had been good up to two years ago, when he began to drink, at first moderately, later to great excess. After a protracted debauch in February he complained of blindness, vertigo, acute pains in back and stomach, nausea and vomiting, and soon after began having convulsions, which recurred at short intervals throughout the night; his tongue was terribly bitten, his face was purple

and puffed, eyes injected and lips swollen. His heart's action was a tumultuous commotion. The liver and spleen hypertrophied and hardened, the abdomen tense and fluctuating, full of water, the legs pitting deeply on pressure. He was given five grains of calomel, one-quarter grain podophyllin, one grain elaterium, ten grains ipecac and opium pulvis in ten doses at intervals of two hours, followed by salts and seidlitz, after free catharsis, began anasarcin tablets, one every three hours, for three days, then reduced to three per diem for three weeks, by the end of which time he was able to resume business; he has continued well since with the exception of a slight edema, which disappeared promptly upon repetition of the anasarcin.

Case 4.—John H., a farmer, aged about sixty years, patient of a country physician, had been sick for several months, rheumatism, heart complications and general anasarca; had not been able to lie down for many weeks and had not been benefited by the ordinary remedies. On my advice he was given anasarcin treatment. The doctor reported to me that after three or four days he was sleeping comfortably, and two weeks later attended a barbecue, including heartily in Brunswick stew, pig and mutton.

This list might be extended to double the number reported, but the histories would be repetitions of the foregoing; those given are fairly typical and illustrative. The questions of scientific orthodoxy, officinal regularity and ethical propriety do not interest the poor people who in the extremity of desperate disease pray for relief, but they grasp at "the straw" of hope offered by any new remedy, whether out of the "books" or not. The peculiar effect of this combination, for it has effects which none of its constituents alone might be expected to produce, suggests a synergistic or correlative action between the parts producing a very potential whole. My only apology for the length and tedium of this article is my faith in anasarcin, and the hope that others may find in it a boon and blessing for a large class of unfortunate sufferers.

[Written for the MEDICAL BRIEF.]

The Electro-Static Machine.

BY J. L. CARTER, M. D.,
Maxwell, Ky.

[Paper No. 2.]

In this short article I want to consider briefly the physiological action of static electricity in its various forms of application. I report a few of the many cases that have come under my care and treatment, a few cases by static insulation, a few by the static induced current, and a few by the wave current. Most of the

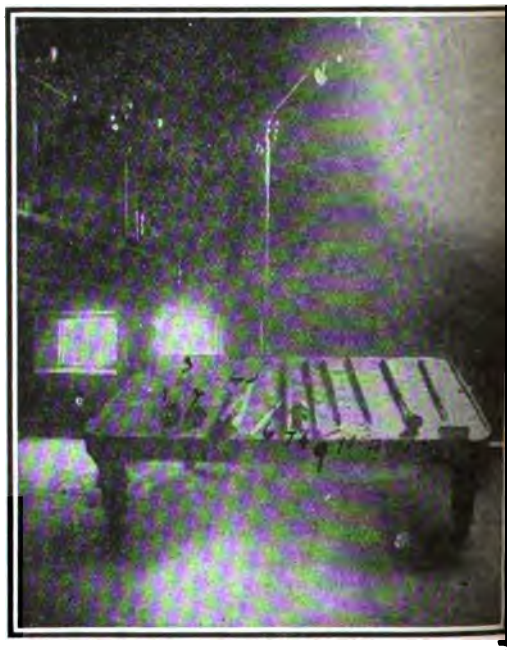


FIG. 2. The insulated table, crown breeze and various electrodes. Nos. 1 and 2, hand sponges; No. 3, two metal rectal electrodes; Nos. 4, 5, 6, 7 and 8, electrodes of wood for giving the "brush" discharge; No. 9, the metal ball for sparks; No. 10, single point spray; No. 11, chain holder; No. 12, multiple point spray; No. 13, massage roller.

writers on static electricity do not make their articles practical enough for the beginner, so in this paper I want to be practical.

What is the difference between static insulation (Fig. 3) wave current, and the static induced current? In static insulation we have our patient seated on an insulated platform, connected with one or the other of the prime conductors of the machine, and the other prime conductor

grounded or brought to zero by having direct ground connection. (See September BRIEF.) In this way the current accumulates on the platform, and the patient is enveloped in the current.

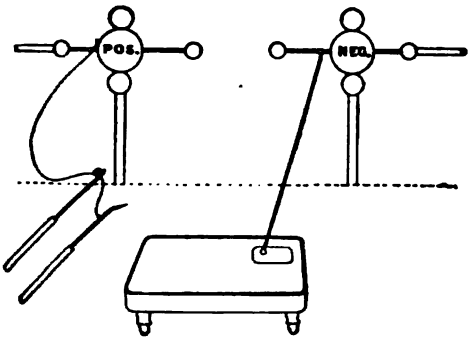


FIG. 3. Static insulation, patient seated on an insulated platform, one side of machine being connected to platform by means of the shepherd's "crook." The other side is grounded, or brought to zero by direct ground connection; the sliding poles are pulled out beyond sparking distance.

Many of the writers on static electricity lay great stress on the polarity, in other words, positive or negative. I do not lay claim to authority further than that gained by experience, and, after all, experience is what counts. I claim that for everyday use the physician need pay but little attention to which pole is used.

The Static Induced Current.—I claim that the Leyden jars are an important attachment to any static machine, some "authors" to the contrary notwithstanding. A Leyden jar is a glass bottle, nothing more or less, with a brass bottom for a base, a hard rubber or other insulated material stopper lined with tinfoil. The top of the jar is attached to the machine by a spiral wire passing from the insulated top of the jar. The base of the jar is attached to the base of the machine by an insulated wire to the binding posts. The jars are attached, the machine started, the sliding rods separated slightly, and with patient seated in a chair, not necessarily on the insulated platform, attached to each side of the machine. (See Fig. 4.)

We separate the poles of the machine one-sixteenth to one-half inch, and our patient is getting the static induced current, a current that has all the physiological effects of the Faradic coil. Hence, in static insulation, the patient is treated on an insulated platform, which is essential, and the current accumulates on the platform.

In the induced current the patient is not insulated, and the current accumulates or is condensed in the Leyden jars. By increase or decrease in the speed of the plates of the machine we can get all the gradations of a fine or coarse wire interruption.

The static induced current is a two-pole current, that is, both poles of the machine are attached to the patient by means of the electrodes covered with felt, sponges or wash leather, or the electrodes may be metal without coverings.

The "wave current" is a one-pole current, the patient being insulated and attached to one pole of the machine; the indifferent pole being grounded, the sliding poles all separated until a spark, or, in fact, a torrent of sparks pass between the discharge balls.

Now, briefly, I want to consider the physiological action, and the therapeutic indications of static electricity as applied

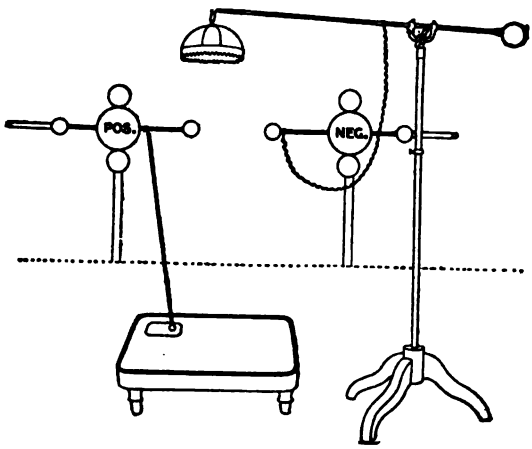


FIG. 4. Morton's "wave current," the patient is insulated to one side of the machine, attach a "Leyden jar." From the binding post of this jar running a wire to the ground, grounding that side. To the other side of the machine attach the "crook," and let patient hold other end, or attach an insulated cord to machine and to patient by means of a metallic electrode, stationary over the part to be treated, separate the rods until the patient gets all the current he can bear.

by static insulation, the induced current, and Snow's wave current.

We know that static electricity is extremely deficient in volume, but that it is endowed with very high potential.

Electrolytic alterations do not take place, but the physiological effects are chiefly modifications of the ordinary vital processes. Suppose we compare electricity with some of the forces with which we think we are familiar, viz., heat, light and sound, and see how closely they are related.

We are taught by scientists that electricity is a mode of motion or other manifestations of a very exceptional form of matter called the ether. In Neiswanger's "Electro-Therapeutic Practice," he refers to some of the properties of this ether: (1) "It permeates all bodies and pervades all known space, even to the most distant star. (2) It is affected by the matter of bodies of which it is." Neiswanger continues—but let us stop; if electricity is everywhere it must be in the human body.

It is by having this ether disturbed, slower for sounds than for light, that we are enabled to see an object, and hear sounds. If sound and light traveled with the same velocity, what a mixup, what a jumble, yet this ether has been disturbed. Now, we know that electricity travels much faster than light, hence, if we interrupt this invisible, unknown something that permeates all bodies, even the most distant star, do we not affect the human body that is brought near the source of the electrical supply?

All students of static electricity know that the great writers on this subject, Snow, Monell, Morton, Neiswanger and others do not fully explain to us how it is that static electricity benefits a patient further than to say that it is a great tonic, and the electro-static current with any of its modalities causes, first, a contraction, then a relaxing of the muscular and circulatory system, hence inflammatory products are carried away, and repair is hastened.

Hence, if I fail to explain its "modus operandi," I am in a measure excused. I have come to this opinion, also, as to how static electricity benefits a patient: if electricity permeates all bodies, it must be one of the vital forces; hence, if the human body is in a low state of nutrition, if it is retrograding from any cause, if there is a local or constitutional disturbance, why not stimulate this vital force by bringing the body under the influence of a body heavily charged with electricity, and this is what we do when we treat our patients with static electricity by its various modalities.

Monell says: "Static electricity may increase, diminish, arrest, or otherwise modify the functional process of the body." It affects secretion, excretion, absorption, reflex action, sleep, respiration, circulation, and nutrition."

All of which any operator of an electro-static machine can verify. Hence, is not electricity a vital element of the body?

Now, as to the therapeutical indications of static electricity: The list of diseases in which it can be beneficially employed is a very long one. Its great fields are nervous and functional conditions. It is a great tonic in cases of malnutrition, rheumatism, hemorrhoids, paresis, chronic synovitis, muscular pain, stiff and inflamed joints, and, in fact, in almost all cases where the nutrition of the body is below par, we have no known tonic of greater benefit than a current from a well-built and skillfully operated electro-static machine.

In the beginning of this paper I intended to report a few cases, but space will not permit, but will promise in paper No. 3 to report a number of interesting cases.

Enclosed find one dollar for the good old BRIEF for 1905.—J. A. BANDY, M. D., Mingus, Mich.

[Written for the MEDICAL BRIEF.]

Fracture Box for Infant.

BY DRS. PENNEBAKER AND TRIPP.
Pleasant Hill, Ky.

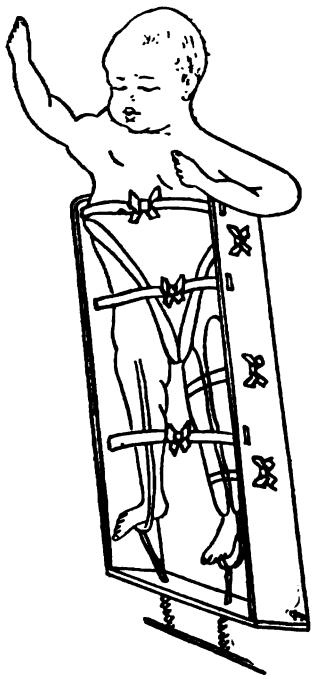
Fracture of the femur is always a fracture of gravity; occurring in the infant, it presents unusual difficulty in treatment. Our case occurred during the birth of a breech presentation, through the use of the blunt hook to expedite delivery, fearing asphyxiation of the child.

Dr. Edward L. Keyes, Jr., in the Reference Handbook of the Medical Sciences, says about this fracture: "For infants the best treatment is vertical suspension of both limbs, by adhesive plaster, etc., in

such manner that the hips rest but lightly on the bed. The position is not uncomfortable, the child can be kept clean, and satisfactory immobilization can be maintained."

Our device consists first of sole leather splints, moulded to the thigh and leg; plaster strips are first placed on the limb for purposes of extension. Chloroform is required to reduce the diastasis and properly adjust the splints, etc.

The fracture box is made of a piece of sole leather, with the sides turned up, of a width sufficient to receive the body of



Sole leather fracture box for fracture of femur in new born infant.

the infant, the same extending to the axilla; these should be sufficient length to allow for extension. The foot piece is made of a strip of wood, perforated for the rubber bands that make extension. The side pieces may be strengthened to prevent buckling, by riveting on wooden strips. These side parts are perforated for the necessary tapes and bands that make counter-extension, bind the fractured member, and join the two strips together by a restraining and retaining support.

The box is padded with cotton batting, the infant placed therein (the fracture being reduced and in the leather splints); plain rubber bands are passed through the stirrup of adhesive plaster, through the holes in the foot strip, and twisted to make extension. The perineal bands are well padded as they pass between the thighs, and fastened through the top perforations to make counter-extension. The fractured member in the splints is confined to the side of the box with suitable tapes; and the infant held in position by the bands that pass across laterally. The clothing is then placed over the infant and box, nothing being visible after the infant is dressed. The mother can soon make the adjustments, removing the infant, wholly or in part, to change or wash and dress it. After three weeks we put our infant in a spica plaster bandage.

This fracture box fulfills the indications as nearly as possible in the treatment of this fracture, viz., reduction, immobilization, extension and counter-extension, and is accessible at any time. It is difficult to prevent some irritation of the skin from the discharges.

[Written for the MEDICAL BRIEF.]

Marriage.

BY J. A. BURNETT, M. D.,
Pauline, Ark.

In adult life, marriage is a normal condition, and anyone who has fully reached the age of maturity and is not married, is not living a normal life.

"Star, registrar general of vital statistics for Scotland, declares his opinion that bachelor life was more destructive to males than the most unwholesome trade or the most unsanitary surroundings."

We find in Hebrews, thirteenth chapter and fourth verse: "Marriage *is* honourable in all and the bed undefiled: but whoremongers and adulterers God will judge."

No one can live a normal married life without issue, and no man or woman who does not desire children is a normal human being, and often the desire is not only for a child, but a child of a certain sex, and by obeying Nature's laws, both objects can be accomplished. In most instances, when a man and woman have

been married for several years, without issue, the cause is supposed to be that of the woman, but this is not always the case, and not as much so as it was several years ago, as it is now stated by good authority that most men, especially young men, have had gonorrhea, and in many instances when a man has swelled testicles from gonorrhea he never becomes the father of a child.

There is another disease—spermatorrhea, which was not a common disease several years ago, but now is a very ordinary complaint, and often it greatly diminishes the size of the testicles and weakens not only the sexual strength, but the patient's mental and physical strength also. When spermatorrhea takes place too often, or when the testicles have been greatly diminished by it, the semen will often be lacking in spermatozoa.

When a physician is consulted in regard to a childless couple they should, in all cases, examine the man as closely as the woman, and by so doing they will occasionally find the man at fault. And when this is the case it should, in all instances, be made known to the woman, and not, as is usually the case, kept a secret from her and make her believe she is at fault.

I have observed, by personal attention, that there are but a very few women who will live single very many years after they reach the age of puberty if they have a reasonable chance to get married; while men, for various reasons, put the matter off for several years. I have also noticed that women have a greater desire for children than men, and, in most instances, they more often have a choice of the sex which they desire their children to be. When a man or woman reaches mature adult age, and marries a suitable companion, they do not do what they should; they, in many ways, miss many of the joys of the world. The men become boorish, and more often criminals; while the women will become melancholy, and more often insane. Physicians, in many instances, could give young men and women advice on marriage, and on selection of a suitable companion, which would be very profitable to them, for marriage will be a complete failure if the couple are not suitable to each other; and when the marriage is not congenial, it is justice that they should have a divorce. No man and woman should be compelled to live together when their natures are not compatible. I will here state that on rare occasions a couple will get married and at the time of the marriage will be well suited to each other, while after living together for several years they will drift apart in various ways and are not any longer suitable for each other, and in such instances they should separate and get a divorce, while yet young and childless.

On the other hand, a couple may get married who are not well suited to each other, and after living together for several years, they will become suitable to each other.

[Written for the MEDICAL BRIEF.]

A Lost Catheter Regained.

BY E. S. BREESE, M. D.,
Dayton, Ohio.

I desire to report a case of unusual interest which came under my care some time ago. P. C., age sixty-nine, had been leading a catheter life two years. Condition otherwise fair, except debility of advancing years and occasional alcoholic debauches.

One afternoon he presented himself and stated that while attempting to catheterize himself he let the catheter pass into the bladder. A No. 10 silver prostatic catheter was passed, and turned gently from side to side. The resiliency of the lost instrument could be easily felt. No anesthetic was given, as the patient was partially under the influence of liquor. A lithotrite of medium size was passed without difficulty, and after three times opening and closing the instrument the foreign body was caught, two inches from the end, bent upon itself and withdrawn. It was a linen catheter No. 10.

Quinine, ten grains, and tincture of belladonna, ten drops, were administered, the patient put to bed, and external heat applied. A slight chill followed the same evening. After three days, the case was dismissed and allowed to resume his accustomed mode of living. The mild sequelæ were probably due to urethral tolerance.

628 North Main Street.

[Written for the MEDICAL BRIEF.]

The Modern Treatment of Pulmonary Tuberculosis.

BY CARL SANDZEN, A. M., M. D.,
Kansas City, Mo.

Medical statistics show that at least one-eighth of all deaths in civilized countries, where records are kept, are caused by tuberculosis of the lungs.

The history of medicine, as far back as it gives the least reliable information, indicates the same *status rerum* since centuries back.

Pulmonary affections have always been considered grave, and medical science has fought this dreaded disease with all available weapons, but until the last one or two decades these have been very poor and inefficient.

The enemy had held the field of death as a victor more merciless than any. Time and again there has come a scientist who claimed to have discovered a powerful weapon against the foe, but we know how sad their defeat has been, when brought eye to eye with the destructor.

Modern bacteriology found the cause of tuberculosis, the tubercle bacillus. New hope arose, and when Koch came with his lymph many, even the doubters, dared hope for, if not a specific cure, at least something near it.

Suffering humanity labored under the impression that the most terrible of all diseases could be cured and controlled What new hopes and still greater despair!

Since that time others have followed his steps, taking up his ideas, but we can hardly say that one of these has been entirely successful. Nevertheless, there is no cause for complete despair. Although we have found no specific cure against tuberculosis, we have at least gained knowledge by hundreds of years of defeat. We have learned to win by losing battles.

We said that bacteriology had discovered the cause of tuberculosis, viz.: a specific organism, a bacillus, but the real nature of the bacillary action has not been understood until lately. Bacilli act through their secretions, the so-called toxines. The germs can either be very virulent, that is, creating great masses of substances of a certain chemical formula, or less virulent. It is, therefore, readily understood that not only the multitude of bacilli, but their virulence, is the cause of the severity of the attacks of the above mentioned disease, and all other diseases of bacterial origin.

The necessity of finding a germicide which would kill the germs without injuring the animal system was strongly impressed upon the scientist of yesterday, and many still adhere to this theory, but the latest, the scientist of to-day, is struggling for the solution of the problem of the neutralization or annihilation of the toxines secreted by the germs.

It would take us beyond the limits of this treatise to review or criticize those theories. There is, as yet, none worth mentioning in preference to the others. We know of no germicide powerful enough to kill germs without injuring the animal system. Many scientists have given us different hypotheses about the way Nature tries to dispose of the toxines, a special branch of *vis medicatrix naturæ*.

We will mention the two most likely, viz.: Metschnikoff's phagocyte theory, and the so-called chemical neutralization theory.

We have found that the animal system has a safeguard against the germs, and many other enemies in the ever-watchful and ever-ready-for-battle leucocytes. These little warriors fight their fierce battle against the invading enemies—the bacilli. Time does not allow us to speak of the phagocyte theory *in extenso*, however interesting it may be. Also the phagocytes, or bacilli-destroying or bacilli-eating leucocytes are our best defenders.

We have found that a strong, healthy constitution can, so to say, send a greater army against the intruders, the bacilli, and is, therefore, more able to destroy the germs and their toxines. This is, in short, the first mentioned hypothesis.

The other says: We know that the juices or secretions of the healthy body, and especially the pure blood, possess bactericidal properties. A strong constitution is also here considered the main factor in the fight against bacilli.

The final consequences of above reasoning is also to demonstrate that the strong, healthy body annihilates both the germs

and their toxic products better than the weak.

The axiom follows: Strengthen the body, in that way enabling it to withstand the attacks of the ever-present disease-producing bacilli. For building up of the body, sunshine and fresh air and proper nutrition are required. Without these necessities of life, health is impossible.

Science has shown that bacterial life can not exist, or is at least less vigorous in sunshine, light and exposure to oxygen. These discoveries have led to the understanding of the great importance of the inhalation of pure air by people affected with tuberculosis, and also to its importance in other diseases of the respiratory organs, which, as a rule, are combined with pulmonary tuberculosis. After these necessary preliminary excursions on the field of bacteriology and hygiene, let us draw our conclusions as how to best treat tuberculosis of the lungs, and guard humanity against such a dreadful enemy.

Fresh air, sunshine, proper food and medicinal aid against complications are all that is required. Let us now analyze, and see how to use above mentioned necessities. The general advice to a consumptive, or a person with "weak lungs," is: go to a better climate. It is true that this advice is good, but fresh air and sunshine can be had almost anywhere. There is a mistake concerning the necessity of proper climate for pulmonary tuberculosis. The dry, hot climate is the best, but is more necessary for sufferers from bronchial affections than real pulmonary tuberculosis. This must always be remembered. For an ordinary case of aforesaid lung disease, good fresh air is obtainable everywhere, except in some very damp locations. The truth of this statement has impressed itself upon many eminent physicians, who instead of, as before, sending their patients away, advise them to stay at home, but instruct them how to get enough fresh air and sunshine.

This constitutes what we now call the outdoor treatment of pulmonary tuberculosis. It can be safely carried out in many ways. Some erect a tent on a porch or in the back yard, and sleep there, well covered and well dressed, after undressing in the house, in the evening, and dressing in the morning. The same result is certainly gained from sleeping in the house, with all the bed room windows open, only with sufficient protection against storm, snow, etc. Good ventilation can be arranged in many ways. The patient should stay outdoors as much as possible during the day, and should stay in the sunshine, not trying to protect any part of the body, except the eyes, from the beneficent rays of the sun.

I do not need to explain in detail how this should be carried out. Any inventive mind will find some ways and means.

A limited amount of exercise should be taken. I mean by limited that consideration should be taken to the strength of the patient. Overexertion is altogether forbidden. No person with fever should be allowed to be up and around. The bed is the only place for the fevering consumptive, but even in his bed he should have the advantage of fresh air and sunshine. Mild hardening of the skin, through cool, not too cold, washings of the whole body every morning in a warm room is desirable. There is very little danger of "catching cold," if properly handled. The food should be sufficient and good, but plain. One should never overburden the stomach with great quantities. It is better to take many small meals than a few heavy ones. Good rich milk, if necessary, sterilized, and fresh eggs, are the best food for a consumptive, and they should be taken in as large quantities as considered advisable to evade distress. If the milk goes against the patient, or causes any kind of dyspepsia, it is good to add a small amount (teaspoon to a tablespoonful) of good brandy or whisky to each glassful of milk. The eggs can be taken raw or soft boiled or scrambled, etc. Nobody should believe that eggs have such an enormous value that only a few can be taken without overfeeding. It is too old a mistake to be even mentioned. One-half dozen to one dozen a day is not too much.

No special food need to be forbidden, except in positively diagnosed diseases of the digestive organs. The day should begin and finish with some food, preferably milk, or milk and raw eggs.

Remember that increase in weight is a very favorable sign. The medical aid that can be given a patient is either symtomatic, or tending to work hand in hand with the feeding. We have no remedy which has any proved beneficial influence upon the disease itself.

The symptomatic treatment is, for example, expectorants in bronchitis, opium in excessive cough, bitter tonics in lacking appetite, hypnotics in sleeplessness, etc. Every physician knows that part of the treatment. The other part, or the so-called artificial feeding, is an important part in our days.

We have so many of these preparations that it is very hard to know what is good or not. I, for my part, have preferred the old time-honored cod-liver oil, given in some more pleasant way, as for example, the very palatable preparation put on the market by Waterbury Co. (Waterbury's cod-liver oil compound). It contains a considerable percentage of fat, and the admixture of creosote and guaiacol make it a good expectorant. Many preparations might be very good, but every physician has, more or less, some favored preparation which has won his confidence by giving good results.

In the foregoing lines I have tried to shortly explain the "why" and "how" of the modern treatment of the most dreadful disease with which we have to deal in our everyday practice. I hope that some, if even the slightest, benefits will be derived from this expose. If so, it is not written in vain.

320 Rialto Building.

[Written for the MEDICAL BRIEF.]

Treatment of Pneumonia.

BY L. C. WASHBURN, M. D.,
Fort Myers, Fla.

I think I have written for your valuable work before, but as the season for pneumonia is here, too much can not be done for the cure of this most fatal malady. It comes on suddenly and is too well known to need description. It is characterized by high temperature, and fever, the pulse in adults about one hundred and twenty per minute, and respirations from twenty to thirty-five per minute in single pneumonia. I have treated double pneumonia, where the pulse was one hundred and eighty-five per minute, and the respirations eighty per minute, day and night for five days, the usual time to look for the crisis, and followed by complete recovery. I never saw a recovery where one could not cough, as the cough is Nature's effort to remove the sputa, and give the lung exercise, that the blood may circulate freely into all parts, to overcome obstruction and supply needed nourishment. I encourage the cough. I do not often find more than one physic required, and I prefer the improved comp. cathartic pills, seven or eight at a dose, which will cleanse the alimentary canal freely, while a small dose stirs up the poisons in the system without sufficient relief, and I give this early in the attack.

The medicine I rely upon most is lobelia. I give a saturated tincture of the seed, with brandy, once in three hours, just enough to slightly nauseate, and if the case is obstinate, or the lung about to become filled up and hepatized, I give lobelia with stimulants and aromatics, to produce free vomiting. The action and reaction of vomiting, while the system is relaxed, dislodges the sputa and obstruction. I give the emetic every day and sometimes twice a day, if the case is dangerous. I have abandoned blisters and rely upon stimulating liniments. Hot baths are of great importance. Quinine and hydrastis are good tonics. The lobelia is a great anodyne, as well as curative. The temperature and fever are Nature's efforts to cure, and the harder and faster the pulse the faster the system is eliminating. Sedatives and opiates are in all cases injurious. I have practiced medicine in Indiana, Missouri, Illinois and Florida over fifty years, and I do not think I had a mortality of two per cent, and I treated all cases called upon from three weeks old up to ninety-five years of age.

Please find enclosed one dollar for 1905. I find the MEDICAL BRIEF one of the best journals for ready reference for the busy practitioner. Success to the Editor and BRIEF. I have been in the harness for thirty-one years.—D. M. MCKNIGHT, M. D., Okra, Indian Territory.

[Written for the MEDICAL BRIEF.]

An Interesting Obstetrical Case.

BY J. W. BRYANT, M. D.,
Shamrock, Mo.

On the night of October 27th, last, I was called to attend a case of confinement, or rather, to look after the third stage of labor—delivery of the placenta. I reached the bedside at midnight, the child having been born at 6:40 in the evening. The patient was a large, rugged country woman, aged forty years, in her fourteenth confinement. She had never before been attended by a physician. Her cases had always before been "grannied." The old grandmother who had been with her in twelve cases was now present—a woman seventy-seven years of age. The woman in confinement is what is called a "bleeder." Her tendency to bleed had been further promoted by the "granny" breaking the cord. The bedding was simply saturated from the hemorrhage. There had been no after-pains. I made examination and found "hour-glass" contraction. There was great pallor of the face; no apparent pulse, either of the radial, temporal or carotid artery. Having just gotten up from a five-weeks' attack of typhoid-malaria, I was too weak to undertake the forcible extraction of the placenta, and was afraid that if I administered chloroform, the woman would die under my hands. I had the family send for another physician—the nearest, ten miles away. I administered one-fourth grain morphia (guarded with one one-hundred-and-twentieth grain atropia) hypodermically. Then immediately commenced the hypodermic administration of one-fortieth grain strychnia sulph. every hour. At three A. M. the other physician arrived. He immediately began the forcible extraction of the placenta without the use of an anesthetic. After much difficulty the placenta was brought away in pieces. I remained with the patient until seven A. M., having kept up the strychnia treatment, lengthening its administration from two to four hours. Nourishment in the form of raw egg, milk and whisky was given from time to time. When I left the patient at seven o'clock A. M. there was no improvement in her condition, except that the hemorrhage had ceased. I expected she would die, and notified her husband. I returned at 11:30 A. M., having been away four and one-half hours. There was no perceptible improvement. I visited another patient and returned at three P. M. A feeble pulse was perceptible, but not countable. I had with me on this trip a household syringe, and ordered a vaginal douching of hot water, and a flushing of the colon with a quart of saline solution. In the meantime, I had administered my dose of strychnia with each visit.

It was 8:30 P. M. when I made my third visit that day, and found that her pulse was distinct at one hundred and twenty per minute; temperature 99 3-5° F. Early on the morning of the 29th of October (third morning), temperature and pulse were the same. I ordered a vaginal douche, and another quart of the saline solution to be given per rectum. At eleven o'clock A. M., I got a hurry-up call to go and see my obstetrical patient. I reached her at noon, and found that from nine to ten that morning, she had had hard labor pains and had expelled two fragments of the placenta that had failed to be removed early the morning before. For this reason I call them labor pains, rather than after-pains. Pulse was still one hundred and twenty, temperature 100° F. Two drops of Norwood's tincture were ordered given every four hours, and an occasional dose of migranda powder was given. Condition, in some respects, as regards temperature, had improved. No after-pains; no abdominal pains. Clots had ceased to pass after first day, and a slight colorless lochial discharge was present. I failed to see the patient on November 2d (seventh day), but early next morning was called on account of a fever having risen that night. I reached the patient at about seven A. M., and found her with a temperature of 104° F. Upon questioning, I learned that all treatment had been discontinued since my last visit, and that the husband had brought beer home for his wife. I again put her on Norwood's tincture and migranda powder, and ordered the hot douche (antisepticised with hydrg. chlo. cor.) twice a day. On November 4th (ninth day) the

pulse had come down to one hundred and eight, temperature 100 2-5° F. By the twelfth day of confinement no flow of milk had ever made its appearance; no abdominal pains had developed; pulse had come down to ninety-six; temperature 99° F. Excepting a constant headache, the patient has progressed to an uneventful recovery.

I report this case as one isolated from ordinary expectation; extraordinary resisting power, or tenacity, on the part of the woman. The profuse hemorrhage causing from a twelve to fourteen hours shock—the pains starting up on the second morning with such force as to expel the placental fragments, and lastly the power to still resist an invited attack of puerperal fever.

[Written for the MEDICAL BRIEF.]

To Old Doc.

BY Z. HOUSTON, M. D.,
Savannah, Mo.

Say, old fellow, it seems that I kind of know you. There is something familiar in your tone of voice and that old well-known therapy that recalls bygone days of success and failure, especially the latter. I, too, am getting along painfully close to that interesting period where the name of Old Doc catches me.

Now, Doc, if I am in error about a previous acquaintance I beg your pardon, but must do this in my plain and uncouth manner and trust that you will grant it in the same way. Taking all for granted, I want to regale you with some of my ideas of things, or rather exchange thoughts with you on things medical and surgical. When I hear you talking to the boys as I sometimes do it reminds me of a few things I one time thought and later on had to unthink, many of them. Don't you remember the time (I know you do) when we got up out of bed, saddled a horse, slung on the old pill pockets, rode seven and eight miles through the blinding snow and rain to see Jack Billions' boy, whom his father said was about dead with a terrible pain across his bowels, and "jabben" him low down towards the right side? Do you remember how we dosed him with calomel, salts and oil until hypercatharsis was induced, and we had the canal thoroughly cleansed from the morbific matter that had lodged in his system? Of course you do, Doc, you know it like a book.

We thought this plan the *ne plus ultra* of all therapeutical measures. But, Doc, after awhile some one found out that we had made a mistake. I guess we did, Doc. It was appendicitis, and then they went to work and cut the danged thing off, and that ended the frolic. Hospitals, science and red tape took our patients and left us nothing but the bellyache.

Well, Doc, after I left there I went and learned how the thing was done and then I done it myself. Now comes another innovation; just after I learned to do the operation for appendicitis someone started another fad that consisted in all the good pay patients insisting on having an appendectomy performed, and that lets me out. I do not know how the operation is done and my old wife says: "Zack (she always called me Zack), don't you have anything to do with it; it's only a scheme to get you to rush in where angels fear to tread, and then you will kill some one." No, Doc, I am staying out with you, my old friend, and my advice is to you, never attempt an appendectomy; it is dangerous. Doc, do you know how it comes that people are born with a vermiform appendix? Well, I will tell you, but I don't want to pose before the scientific world as anything but a poor, old, broken down country doctor. It is this way: Way back sometime prior to the Antediluvians—further back than that, I expect, don't know the exact date—when the people did not cook their grub and lived mostly on cereals, such as wheat, corn, oats, etc., and in eating this raw, they had to be provided with some kind of a receptacle to finish up the stuff so it would be fit to build up the system; therefore, the appendix. But this receptacle was of such dimensions that the average modern surgeon would have charged from one thousand to fifteen hundred dollars for its removal, even in the ordinary circumstanced individual. After a time cooking was introduced, and as there was much less need for the concern, it commenced to dwindle away until it has almost disappeared from the field of physiologic

action. Modern surgeons still are making an effort to hold up the price.

Now, Doc, I will not intrude further, but hope to meet you soon in the columns of the BRIEF.

[Written for the MEDICAL BRIEF.]

A Peculiar Case in Obstetrics.

BY C. C. WALKER, M. D.,
Dickens, Tex.

I have rather a peculiar case to report. On July 23d I was called out of town, about fifteen miles to see Mrs. J. C. H. On my arrival I found the lady in bed and very quiet. On inquiry I found she was about six and one-half months gone, as she called it, and that she was wasting some, but not much. She said she had same trouble a year ago, but at three months, and she begged me in the name of heaven to help her go to full term, as she had no children and wanted one. After getting a full history of the case, I prepared myself for an examination. On examination, I found the os and all the soft parts in a normal condition, and but very little hemorrhage; no pain, bowels and kidneys in good condition and general health good. I told her I would do all I could to carry her through, but had grave fears that a miscarriage was inevitable. I was satisfied that I had a case of placenta previa, on account of absence of pain. So I raised the foot of the bed, gave large doses of Hayden's comp. and aletris cordial rio; ordered her to keep quiet and move bowels with saline cathartics and also a teaspoonful of sanmetto every four hours. On leaving, I instructed the nurse to notify me at once. On the 25th I received a telephone message to come at once, as the hemorrhage had started up again. When I arrived, I found her still without pain, but some hemorrhage. I made an examination but found no dilatation of the os. I informed the lady and her husband that I must deliver her at once. She said, "No, doctor, the child is still alive." I told her it was dead, but she said she could feel it move, etc.

I prepared everything and administered chloroform and introduced my hand, rupturing the membrane, and in a few minutes the child was born, but dead, as I had said, and in a partial state of decomposition. I delivered the placenta, washed out the womb with bichloride sol. and instructed the nurse to do the same once daily. I kept up cordial and gave Dad's quinine pills four times daily, and I gave pepto manganese with iron and arsenic three times daily. All went well for fifteen days. The lady got up, ate heartily, bowels and kidneys acted well; flow remained normal up to fifteen days and paled away. But lo and behold! the worst was yet to come.

On the night of fifteenth day she was taken with pain in the left hip and down the leg, and leg began to swell to an enormous size. Here came another telephone message. I went and found her as described above, and as easy as she could be, cheerful and hopeful. She said she had milk leg. Said she had had it before and knew what it was. Temperature was 101½° F. I applied hot fomentations to leg, gave ecthol in good doses; also used it externally and internally. I gave cactina pillets, two every two hours; one-sixtieth grain of strychnine every six hours; used a liniment composed of tinct. opii., tinct. camphor, creosote and olive oil. Kept up pepto manganese of iron (Gude's), and in ten days she was able to sit up and eat heartily. Swelling left the leg to a great extent. On the eleventh night she retired feeling very well, but in a few minutes she turned over in bed and said she was dying, and in ten minutes she was dead. She died easy, and the strange thing is, in two hours after she died her right leg was as large as the other and as black as midnight, and was soon in a state of decomposition, while the left leg changed but little.

I only mention a few of the remedies that were used; while a number of others were used. Is there anything strange about this case, or is it common? (not with me).

Please find enclosed one dollar for which send me the MEDICAL BRIEF for the year. I suppose I am one of your oldest subscribers. I think ever since it has been called the MEDICAL BRIEF.—J. B. MARTIN, M. D., Russellville, Mo.

[Written for the MEDICAL BRIEF.]

Unusual Case of Cirrhosis of the Liver.

BY W. E. PUTNAM, M. D.,
Surgeon-General State of Vermont,
Bennington, Vt.

I was called on December 17, 1899, to see J. P., a Dane, whom I learned had been a steady, and at times, heavy drinker of spirits in some form for forty years. He complained at the time of my first visit of a dull pain in the region of the liver, which was accompanied with symptoms of gastric catarrh. His complexion was sallow, and I was told he had fallen off in weight during the past few months. Urine contained traces of albumen and deposits of urates. At that time I warned him against the further use of alcohol in any form, and gave him a course of calomel and alkaline purgatives, which seemed to give temporary relief. Before long, however, the abdomen began to swell and continued to do so rapidly until in six weeks his breathing was much interfered with, the evident effusion being very large. Up to this time he did not go to bed (excepting at night) and aside from the discomfort of the ascites, did not suffer very much. On January 30, 1900, I first performed paracentesis abdominis upon him, drawing off forty-five pounds of acetic fluid. The patient remained in bed (under protest) for twenty-four hours, then got up and went to work in his garden. Next day he went down town and I think indulged rather freely in the "cup that cheers." Six weeks after that his abdomen was enormously distended with acetic fluid, and I removed the tremendous amount of fifty-one pounds.

He again remained in bed twenty-four hours, after which he got up and went down street, but did not indulge in the ardent. In the intervals between tappings he was very comfortable until the abdominal distention began to interfere with his breathing and locomotion.

In the course of about nine months the dropsical effusion extended to the legs. Between the first operation and his death, eighteen months afterwards, I operated twenty times, taking away in all about nine hundred pounds of acetic fluid. The unusual features of this case were the length of time he lived after first evidences of dropsy appeared (nearly eighteen months), the enormous amount of fluid removed, and the strength the patient manifested for some time after each tapping.

Towards the end gangrene took place in each foot. His remedies were largely mercurial alteratives and diuretics, with hydrochloric acid and charcoal for the flatulence which was quite troublesome at times. I have spoken of this case to several physicians and surgeons of prominence, none of whom had ever encountered one like it, especially in regard to the amount of fluid removed, and strength following operation.

It certainly stands alone in my experience. I would say here that this man had only been in the United States about a year, when first symptoms were noted, having come out at the age of sixty-five years to live with his daughter here.

Find enclosed one dollar for the MEDICAL BRIEF for the year. I can not afford to be without it. I wish you and all of the readers good health and good collections.—D. M. MCKNIGHT, M. D., Okra, Indian Ter.

[Written for the MEDICAL BRIEF.]

Hydatidiform Moles.

BY C. M. FENN., A. M., M. D.,
San Diego, Cal.

I am inclined to believe that these neoplasms are not as infrequent as Dr. Bushnell's interesting contribution to November BRIEF would seem to imply. At all events, I recall two cases that have occurred in my practice of about forty years.

In the first instance, Mrs. P. was supposed to be three months pregnant, when slight hemorrhages seemed to presage an abortion. Soon a mole about the size of an orange was expelled, which from the period of its growth was probably a mola carnosa. The entire amnion was destroyed and all other evidences of con-

ception obliterated. Her recovery was uneventful.

My second case was more formidable, and did not terminate until near the seventh month. Mrs. H., a young and plethoric primipara, had a husband well advanced toward middle life. As she had slight hemorrhage during the earlier months of her supposed pregnancy, and larger ones later, the symptoms seemed to portend a placenta previa. Then came small aggregations of the characteristic grape-like cysts, which cleared up the diagnosis.

As the cervix was soft and measurably dilated, I had no difficulty in introducing my hand, and bringing away a mass that quite filled a large chamber. As in the first instance, the embryo, if it ever existed, was entirely absorbed, as is sometimes the case. Recovery was rapid and complete, and a few months later was followed by a genuine conception.

Enclosed find check for one dollar. Can't do without the BRIEF.—R. B. HUDSON, M. D., Coupland, Texas.

[Written for the MEDICAL BRIEF.]

HILLSBORO, ORE., October 30, 1904.

Editor MEDICAL BRIEF:

DEAR SIR:—I have been in the country newspaper business for many years, and as a newspaper man have frequented many physicians' offices in quest of "dope" for the issue. In their offices I have noticed your BRIEF, and this evening two of our county seat doctors are out in the mud, on errands of mercy—and fees—and this fact led me to bestride the mule "Pegasus," and wander down the Pike. I enclose you the result, which is, perhaps, troubled with spinal meningitis. If you care to publish this as a matter of compliment to your thousands of country clientele over the United States, it would please me.

Yours truly,

L. A. LONG.

DER COUNTRY DOCTOR.

Who vos it kits oop in der night,
  Und starts out by meln blace,
And drives along dot muddy roats,
  Like he vos in dot race?
Der Doctor.

Who iss it, ven he kits out here,
  Makes fast dot hoss so quvick,
Kicks at der hund, und den says, "Shon,
  Vich vun der kids iss sick?"
Der Doctor.

Und den, I say, "It's not der kids,
  Aber little Fraulein sveet;"
Shust den I fix a shair for him,
  Dot he can varm hiss feet?
Der Doctor.

Who, den, alretty in an hour,
  Says, "Shon, come see dot boy;
Alretty dot makes four you've got,
  Koot-bel, I wish you joy?"
Der Doctor.

—*L. A. Long, Editor, The Argus Publishing Co., Hillsboro, Ore.*

Enclosed you will find postal money order for one dollar for the MEDICAL BRIEF for another year. I feel lonesome without its regular monthly visits.—C. E. RUSSELL, M. D., Venus, Texas.

[Written for the MEDICAL BRIEF.]

Replies.

BY T. A. JONES, M. D.,

Selfs, Texas.

I will try to help in some queries of November. As to our dark-haired San Antonio friend, will say if he has the time and patience he can saturate a few hairs at a time (letting them dry well before coming in contact with rest of hair) with blondine H_2O_2, which will turn saturated hair nearly white. I can not say as to the injury to hair so treated.

In answer to G. F. L. B., M. D., Texas, would say our friend was suffering from neurasthenia, and would suggest temperance sexually above all things, and sanmetto every four hours, teaspoonful for irritated sexual organs.

℞ Tinct. Nux.....1 drachm.
Pepsin Sach.....1 drachm.
Acid Hydrochloric.....1 drachm.
Aquæ Pura.....q. s.....4 ounces.
M. Sig.: Teaspoonful after meals.

And one or two teaspoonfuls of neurilla before retiring at night, and plenty of nourishing food and outdoor exercise, but not to extent of fatigue.

Enclosed find one dollar. Send the BRIEF along. Can't do without it.—C. O. JENISON, M. D., Greenville, Mich.

Inquiry Department.

Catarrh in the Head.

QUESTION:—I have three cases of catarrh, which I will describe briefly, and will be glad to have some suggestions as to the best method of treatment.

Case 1.—Disease of ten years' standing. Mucous membrane and subjacent tissues of nasal chambers and accessory cavities have been affected to such an extent as to cause a disagreeable odor. Hearing is impaired. The ticking of a watch can not be heard further than twelve inches. Odor somewhat diminished of late, but hearing does not improve. Crusts form in the nose which are somewhat difficult to remove.

Case 2.—Disease of a few years' standing, much like number one, but up to the present hearing is perfect.

Case 3.—Disease seems to be the result of repeated colds, say two or three times a year. The saliva is much increased in flow in this case, so that patient has frequently to expectorate to relieve the mouth of accumulations made up principally of saliva and a very small amount of mucus. No crusts, nasal chambers moist. Hearing has been affected within the last few months. Can not hear further than fifteen or eighteen inches.

The physical condition of these three cases is otherwise excellent.

Washington, D. C. N. H. S., M. D.

ANSWER:—Remove crusts by using the nasal douche cup, which fill with warm water, and add a quarter of a teaspoonful of borax and thirty drops of glycerine. Follow the cleansing with an application, by means of a nasal swab, of a solution composed of one drachm fluid extract of hydrastis in two ounces each of glycerine and rose water. The throat, also, should be gargled with the above cleansing solution, and the pharynx touched with the hydrastis mixture.

Use whatever constitutional treatment may seem indicated—cod-liver oil, malt extract, iron, hypophosphites, iodine derivatives, etc. Diminished vitality is present in all cases. It may be want of elimination, anemia, a perversion of circulation or innervation. Look up the leak and patch it as best you can.

Case 2 may be treated on the same plan. Do the best you can for them in a hygienic way. See that they are warmly and suitably dressed in every particular, that the rooms they occupy are well-ventilated, that they exercise regularly, and do not eat indigestible food, etc.

In *Case 3*, suggest that you give her one one-hundredth grain strychnine sulphate three times daily for about ten days to control the excessive secretion of saliva. Precede same by a laxative dose of citrate of magnesia.—ED.

Chronic Diarrhea.

QUESTION:—Have been treating a very troublesome case of chronic diarrhea, with dysenteric discharges. Have at last got the flux stopped, but the patient is very much reduced in weight, and very feeble. Hands and feet cold all the time, breathless on the least exertion. Spends most of the time in a reclining posture. A hacking cough causes considerable uneasiness, as consumption runs in the family.

What is the best way to build this patient up? I am young in the practice, and anxious to make a success of this case.

Ky. M. S., M. D.

ANSWER:—Put him on syrupus roborans, a teaspoonful three times daily, then exert all your skill and knowledge on the feeding problem. Milk enters into the preparation of many simple and nourishing dishes, honey, chocolate, rice, baked bananas and apples, animal jellies, cup custard, sweetbreads, bone marrow, Burnham's clam bouillon, Colden's liquid beef, trophinine, etc. The tenderloin of steak ground and broiled. No grease, no made dishes nor sweets, except honey and chocolate. A very little old apple brandy used purely as a medicine, is of service in some cases, warming the stomach, and making the circulation more active.

See that the patient wears wool next to the skin, and is warmly shod. The living-room should be well-ventilated, and warm. —ED.

Pruritus Vulvæ.

QUESTION:—Kindly give me a remedy to stop the terrible itching in pruritus vulvæ. Is internal medication of any benefit in this condition?

Ohio. M. P., M. D.

ANSWER:—Keeping the parts clean with a weak solution of borax, and making a free application of resinol will relieve a mild case. A deranged liver, kidneys, or skin, may be causing the trouble, in which case remedies to remove the diseased states of these organs would naturally

benefit the pruritus. Pruritus accompanies jaundice, and is often present in albuminuria, lithemia, and diabetes. A leucorrhea is responsible for vulval and anal pruritus in many cases, and relief follows checking of the discharge. Abuse of tea, coffee, opium, etc., causes pruritus in a percentage of cases.

Ten-drop doses of cannabis indica in water, three times daily, after meals, gradually running up to thirty drops, is well spoken of by some, but is very uncertain in its action. The internal use of chionia and aletris cordial rio, equal parts, teaspoonful thrice a day, and the local application of diluted listerine, often produce satisfactory results—ED.

Syphilis.

QUESTION:—An Oklahoma correspondent wants to know whether soft chancre ever produces constitutional or secondary syphilis. He says that some claim the affirmative, while all recent works deny that constitutional trouble ever follows soft chancre. He further inquires whether a patient who has remained free from secondary manifestations for six months after exposure to possible infection may be pronounced free from the disease.

ANSWER:—We should be glad to have the views of the profession on these points. We should think it possible that a mild degree of sepsis or cachexia might follow soft chancre, but not true syphilis, as syphilis is a distinct disease. Ordinarily we would say that six months' exemption from all secondary symptoms of whatsoever kind, would entitle a man to be considered free from the disease.—ED.

Articular Rheumatism.

QUESTION:—Last winter had a very obstinate case of articular rheumatism in a young woman, school teacher, aged twenty-seven. Finally got the disease under control. Has no more pain, and is able to go about and attend to her duties, though still weak. Appetite and digestion are picking up, and she seems to be going on favorably except that the hands, feet and legs are still swollen, and the flesh, while it is of a good color, is not firm. This swelling increases markedly with every change in the weather. What can I give her to relieve this dropsical tendency?

New York. T. H., M. D.

ANSWER:—Anasarcin might help you out in this case. Fluid extract apocynum cannabinum, three to five drops every three hours, is a useful remedy to correct edema and dropsy. Also give an iron tonic. Tilden's hydrocyanate of iron is a good preparation—one tablet three or four times a day. Ovoferrin is another preparation easily assimilated.

Systematic rest and a certain amount of recreation should be insisted on, otherwise the habits and diet must be of the simplest. See that she is warmly dressed and suitably protected from the weather. So many young women neglect themselves in these particulars.

Recovery from rheumatism is a slow matter, requiring watchfulness and great care to eradicate every trace of the disease.—ED.

Hook Worms—Pertussis.

QUESTION:—Please tell us something about hook worms, diagnosis, treatment, etc.

Do you know any specific for pertussis?

Can not get along without the BRIEF.

Oakvale, Miss. J. J. STRINGER, M. D.

ANSWER:—Will some one who has had practical experience with the disease respond to the Doctor's inquiry for information concerning the hook-worm?

In regard to pertussis, you will find a preparation made from the fresh leaves of castanea vesca (chestnut) efficacious in the treatment of this disease. Bromides also have their value. Belladonna is liked by many. Inhalations of vapocresoline and of sulphur vapor in many cases greatly mitigates the paroxysms.—ED.

Urinary Difficulty.

QUESTION:—I write you for some information in the case of a woman who has been sick for a long time. Had typhoid fever three years ago, got up, but soon developed something like abscess of the bowels, but improved on remedies directed to the liver—arsenic, etc.

After this she suffered from polyuria for a time.

The principal symptoms are now as follows: The urine has a deposit, whitish in color, and of salty taste. After the menstrual flow the urine is very scant for some days, and there is a burning that appears to go to the bone, and also of the entire skin. The urine has a bluish, greasy scum over it.

Will the BRIEF readers and Editor please consider this case, and give me some light on it?

Rusk, N. C. E. B. HAMPTON, M. D.

ANSWER:—Would put this patient on a diet consisting of vichy and milk, a little rice, calve's foot jelly, chicken broth, and

similar non-stimulating, easily-digested articles. Use no condiments, sauces, etc.

Make a trial of lithiated hydrangea, teaspoonful three times a day before meals for three or four weeks. Flush the bowels out occasionally with citrate of magnesia. Gray's glycerine tonic may be of assistance in building her up.

The California sylmar olive oil, one or two teaspoonfuls, in the morning, half an hour before breakfast, may be of some use if the patient can take it.—ED.

Sciatica.

QUESTION:—Man, aged forty-seven, complains of continuous pain of a dull, aching character along the course of right sciatic nerve. Has suffered a good deal from rheumatism off and on. Heart appears to be normal. Appetite good, digestion fair, suffers a good deal from constipation. Is able to walk short distances with the aid of a cane, but the pain is always worse after exertion, and he fears he will be reduced to the use of a wheel chair.

Editor, please give treatment for this case, and would like to hear from any of the brethren experienced in similar cases.

N. J. H. G., M. D.

ANSWER:—We believe this case would be benefited by the use of tongaline, a teaspoonful three times daily, given in conjunction with Lloyd's macrotys, three to five drops every two or three hours.

A partial impaction of the bowel and intestinal flatulence may cause sciatica. If these conditions are present, regulate the diet, cutting out saccharine and starchy matter to a large extent, and evacuate the bowels by means of saline laxatives and high enemas. Bear in mind the assistance afforded by round doses of strychnine where there is a pronounced degree of intestinal torpidity.

A hot salt pack for the leg is helpful in many cases. Marigol liniment is a good application for neuralgic nerves.—ED.

Diarrhea With Night Sweats.

QUESTION:—Would like some assistance in a bad case of chronic diarrhea, with night sweats. What will be the best diet for this patient?

Mass. L. S., M. D.

ANSWER:—First purge him well with epsom salts. Then give one one-hundredth grain strychnine sulphate three times a day, and use tannalbin (Merck) to restore tone to the intestinal mucous membrane. If the character of the discharges indicates that there is something wrong with the liver, add a reliable hepatic regulator to the treatment.

If the sweats persist under this treatment, take a few drops of dark pinus canadensis on going to bed.

As to diet, milk and its preparations, koumys, soft-boiled rice, chicken broth, egg-nog, Eskay's albumenized food, panopepton, and other therapeutic foods will assist you in nourishing the patient without unduly taxing the digestive powers. All the food taken should be soft and bland. Sometimes the medicinal use of a little old apple brandy, in tablespoonful doses, after eating, is of great help.—ED.

Asthma.

QUESTION:—Will you please give me a good recipe for asthma? I have a patient who is badly afflicted, and on whom I have tried all available remedies, but without much success.

FRANCIS J. HORTMANN, M. D.

Bancroft, Iowa.

ANSWER:—Asthma is a very unsatisfactory disease to treat. The following mixture has given a considerable measure of success:

℞ Tinct. Lobelia.....1 to 2 ounces.
Ext. Yerbæ Santæ Fl.....3 ounces.
Ext. Glycerrhizæ Fl. } q. s. ad...8 ounces.
Glycerini..... }

M. Sig.: Teaspoonful three or four times daily.

Give in conjunction three-grain doses of ammonium iodide. Keep bowels open, diet carefully, hygiene should be of the best. Regular but very gentle exercise. Respiton has been used with satisfactory results in some cases, teaspoonful four times a day.—ED.

Dandruff.

QUESTION:—What will cure a persistent case of dandruff, seborrhea sicca? The various so-called specifics recommended for this purpose are practically worthless.

New York. A. LANG, M. D.

ANSWER:—Make a saturated solution of boracic acid in a half-pint of rose water, and add a half-ounce of glycerine, and seven and one-half ounces of listerine. Apply every other day, wetting the scalp well, and rub around the roots of the hair gently.—ED.

Prostatic Disease.

QUESTION:—Please give me, in next BRIEF, your treatment for a case of prostatic trouble exhibiting the symptoms described by Dr. J. Leland Boogher in his contribution to October BRIEF. The patient complains a great deal of backache low down.

Mich. J. C., M. D.

ANSWER:—First relieve the spinal ache and debility by means of the following mixture:

℞ Ext. Eupatorell Purpur. Fl...4 ounces.
Ext. Viburn. Op. Fl.....2 ounces.
Ext. Hydrastis Can. Fl.....2 ounces.
M. Sig.: Teaspoonful every four hours.

Follow this medication up with sanmetto, in teaspoonful doses, four times a day.

Good habits should be observed in all respects; indigestion and constipation avoided.—ED.

Lengthening the Body.

QUESTION:—I have a question to ask through the MEDICAL BRIEF in regard to the growth of the bones. Some short people would like to be an inch or two taller, and believe that this can be accomplished by stretching the body, and manipulating it with an instrument.

In the English army a method has been resorted to of manipulating the dorsal vertebræ with an instrument to gain a half-inch or more in order to pass muster.

I do not think this is practical. The bone must receive some injury through this treatment; perhaps the whole body suffers.

Let us have some light on this.

West Lynn, Mass. E. F. JOOS, M. D.

Burns.

QUESTION:—What is the best dressing for burns? Glad to hear from any one on this point.

Neb. H. P., M. D.

ANSWER:—Dark pinus canadensis, and unguentine, are both fine applications for inflamed surfaces, whether the result of a burn or of disease.—ED.

Enclosed find one dollar for the MEDICAL BRIEF. It is the best journal that I take.—M. E. STANLEY, M. D., Olmstead, Ark.

To those who have already subscribed for 1905, we take this opportunity to express our thanks.

[Written for the MEDICAL BRIEF.]

Tape Worm—Simple But Effectual Remedy.

BY C. HENRY WHITING, M. D.,
Elgin, Ill.

This very annoying and distressing monster has been removed in many ways.

In several cases of the removal of tape worm I have used the following remedy with success: A patient of mine, Mr. J. F. L——, forty-five years old, called at my office; he had suffered for ten years with a tape worm. He had tried spirits of turpentine, pumpkin seeds, castor oil, valerian bark, pomegranate root, but could only pass a few feet of the worm. The worm often caused a distressing sickness of the stomach; he would sometimes vomit blood and be taken suddenly ill, especially while walking. His appetite was very copious, being at times good, and then poor for months; sickness, vomiting, great pains in the chest, stomach and side, also in the bowels; dizziness, dimness of the eyes. His general health bad. I prescribed iron filings, such as are obtained at blacksmith shop—to take two tablespoonfuls, add molasses two ounces, mix and to take one-half teaspoonful twice a day (at night); to eat no supper or breakfast. For a purgative I gave mandrake. In less than forty-eight hours he passed a tape worm one hundred and twenty-five feet long. He immediately recovered and has since regained his health, and there is no evidence of any remaining. When once a tape worm begins to pass the bowels care must be taken not to break it off, for it will grow again. It has this peculiar property. But he got out, head and tail.

This year the lines of articles in the BRIEF will number many of the leading medical authors. Renew now and get them all.

Enclosed find one dollar for the MEDICAL BRIEF for another year. I take some eight different medical journals and think the BRIEF is the best of all. Shall continue to take it as long as I am in practice.—C. W. HOAG, M. D., Weir, Kan.

Book Notices.

TEXT-BOOK OF HUMAN PHYSIOLOGY. Including Histology and Microscopical Anatomy, with Especial Reference to the Practice of Medicine. By Dr. L. Landois, Professor of Physiology and Director of Physiological Institute in The University of Greifswald. Tenth revised and enlarged edition. Edited by Albert P. Brubaker, M. D., Professor of Physiology and Hygiene in the Jefferson Medical College, etc. Translated by Augustus A. Eshner, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic, etc. With three hundred and ninety-four illustrations. Philadelphia: P. Blakiston's Son & Co. Price, $7.00.

The great success that has attended this work stamps it as a necessity to student and practitioner. It is a guide which conducts the student from the physiological laboratory to the work of the clinician. Send for a copy.

A TREATISE ON BRIGHT'S DISEASE AND DIABETES. With Especial Reference to Pathology and Therapeutics. By James Tyson, M. D., Professor of Medicine in the University of Pennsylvania, etc. Second edition. Illustrated. Including a Section on the Ocular Changes in Bright's Disease and in Diabetes. By George E. de Schweinitz, M. D., Professor of Ophthalmology in the University of Pennsylvania, etc. Philadelphia: P. Blakiston's Son & Co. Price, $4.00.

The unsettled state of the pathology and etiology of diabetes makes the latter subject difficult to treat satisfactorily, but pains have been taken to present clearly the different conditions under which the symptoms arise, in order that they may be recognized and such conclusions drawn as to their origin as may be justified.

CLINICAL PATHOLOGY OF THE BLOOD. A Treatise on the General Principles and Special Applications of Hematology. By James Ewing, A. M., M. D., Professor of Pathology in Cornell University Medical College, New York City. Second edition, revised and enlarged. Illustrated with forty-three engravings and eighteen colored plates drawn by the author. New York. Lea Brothers & Co. Price, $3.50.

There has been rapid advance made in a knowledge of the pathology of the blood and the application of this knowledge requires a thorough reading on the subject.

HYDE AND MONTGOMERY ON THE SKIN. A Practical Treatise on Diseases of the Skin, for the Use of Students and Practitioners. By James Nevins Hyde, M. D., Professor of Dermatology and Venereal Diseases, and Frank H. Montgomery, Associate Professor of Dermatology and Venereal Diseases in Rush Medical College, Chicago. Seventh and revised edition. In one octavo volume of nine hundred and thirty-eight pages, with one hundred and seven engravings and thirty-five plates in colors and monochrome. Price, cloth, $4.50; leather, $5.50. Philadelphia and New York: Lea Brothers & Co.

This work is no doubt familiar to you, since it has long enjoyed the greatest popularity among the profession, but we specially invite your attention to this edition because it presents such marked improvements as to render it practically a new work.

THE ROENTGEN RAYS IN THERAPEUTICS AND DIAGNOSIS. By William Allen Pusey, A. M., M. D., Professor of Dermatology in the University of Illinois; and Eugene W. Caldwell, B. S., Director of the Edward N. Gibbs' Memorial X-Ray Laboratory of the University and Bellevue Hospital Medical College, New York. Philadelphia: W. B. Saunders & Co. Price, Cloth, $4.50; Sheep, $5.50.

Everything of value in X-ray methods is given in a concise way, and it will be found invaluable, not only to the general practitioner, but also the specialist. The diagnostic features alone are a revelation.

THE SURGICAL TREATMENT OF BRIGHT'S DISEASE. By George M. Edebohls, A. M., M. D., LL. D., Professor of the Diseases of Women in the New York Post-Graduate School and Hospital, etc, etc. New York: Frank F. Lisiecki, Publisher. Price, $2.00.

The surgical treatment of Bright's disease is certainly a modern method, and even now many questions relating thereto await solution, yet the author has given you enough material in his work to meet the demands of all who seek information.

HEALTH, STRENGTH AND POWER. By Dudley Allen Sargent, A. M., Sc. D., M. D., Director of Hemenway Gymnasium, Harvard University. Illustrated. New York and Boston: H. M. Caldwell Co., Publishers. Price, $1.75.

Dr. Sargent has a world-wide reputation as the recognized authority on physical culture. His exercising machines, inventions, etc., have been in use for years in

every public or private gymnasium. He has been gradually developing a system of exercises, without apparatus, for physical development which would appeal to the people in general, so that this work marks a distinct advance in the science. This appeals to all persons.

MANUAL OF MEDICINE. By Thomas Kirkpatrick Monro, M. A., M. D., Fellow of and Examiner to the Faculty of Physicians and Surgeons, Glasgow; Physician to Glasgow Royal Infirmary, and Professor of Medicine in St. Mungo's College; formerly examiner in the University of Glasgow, and Pathologist to the Victoria Infirmary. London: Balliere, Tindall & Cox. Philadelphia and New York: W. B. Saunders & Co. Price, $5.00.

This is the most complete work of the day for the use of students, as it covers the grounds almost as comprehensively as many of the text-books.

STRABISMUS OR SQUINT. Latent and Fixed. A Supplement to the Errors of Refraction. By Francis Valk, M. D., Professor of Diseases of the Eye, New York Post-Graduate School and Hospital; Consulting Ophthalmologist, Thrall Hospital, etc. New York and London: G. P. Putnam's Sons. Price, $1.75.

The author of this work, being a contributor to the pages of the BRIEF, needs no further introduction as to his capabilities as a sound and convincing writer on his specialty. We commend the work.

THE SCIENCE AND PHILOSOPHY OF LIFE. To Live to Attain to the Development of Our Higher Powers and Faculties, That we May Come Into the Possession of Fullness of Peace and Plenty, of Abounding Health and Happiness Here, and a Never-Ending Eternity of Joy Hereafter. By Edward H. Cowles, D. P., Principal of the Portland Institute of Psychology. To Live to Learn, to Do, to Love, to Have and to Enjoy. Palermo, Cal.: Alta Vista Psychological Sanitarium. Price, $1.00.

The above statement will give you a good scope of this work, and we believe it well worth reading.

DISEASE OF THE PANCREAS. Its Cause and Nature. By Eugene L. Opie, M. D., Associate in Pathology in the Johns Hopkins University; Fellow in the Rockefeller Institute of Medical Research. Philadelphia and London: J. B. Lippincott Co. Price, $3.00.

The practical information in regard to diseases of the pancreas and its cause and nature has not been, heretofore, fully given in any work; therefore, it seems that this work is a necessity, in a diagnostic sense, while the treatment is up to date.

STATE BOARD EXAMINATION SERIES. Questions in Anatomy Asked at the Examinations Held by the New York State Board of Medical Examiners, Complete, with References and Answers to Every Question. Compiled and edited by R. J. E. Scott, A. M., M. D., B. C. L., Attending Physician Bellevue Dispensary, and Attending Gynecologist Demilt Dispensary, New York. New York and Philadelphia: Lea Brothers & Co. Price,

This series of works should commend themselves to all students and physicians who expect to undergo the ordeal of an examination, and also all physicians who wish to polish off the rust of long standing. The series will be complete and act as a quiz from a practical standpoint. The actual questions and answers used by the State Board, based on Gray.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS. Comprising ten volumes on the year's progress in Medicine and Surgery. Issued monthly, under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Vol. VIII, Materia Medica and Therapeutics, Preventive Medicine, Climatology, Suggestive Therapeutics and Forensic Medicine. Vol. IX, Physiology, Pathology, Bacteriology, Anatomy, Dictionary. Vol. X, Skin and Venereal Diseases, Nervous and Mental Diseases. Chicago: The Year Book Publishers. Price, per volume, $1.00; for series of ten volumes, $5.50, advance.

These are July, August and September issues of a most valuable series on medical progress. Do not miss getting these volumes, as they comprise a valuable addition to any library.

REFRACTION AND HOW TO REFRACT. Including Sections on Optics, Retinoscopy, the Fitting of Spectacles and Eye-Glasses, etc. By James Thorington, A. M., M. D., Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine, etc. Third edition. Two hundred and fifteen illustrations, thirteen of which are colored. Philadelphia: P. Blakiston's Son & Co. Price, $1.50.

This is a very clear and concise work on the subject, and while this is the third large edition, one edition had to be duplicated. It is very popular.

THE URINE, and Clinical Chemistry of the Gastric Contents, the Common Poisons, and Milk. By J. W. Holland, M. D., Professor of Medical Chemistry and Toxicology, Jefferson Medical College of Philadelphia. Forty-one illustrations. Seventh edition. Revised and enlarged. Philadelphia: P. Blakiston's Son & Co. Price, $1.00.

This work should be in the library of every physician owing to its thoroughness along the lines mentioned in the title.

HANDBOOK OF PHYSIOLOGY (KIRKE'S). Revised by Frederick C. Bush, B. S., M. D., Professor of Physiology, Medical Department, University of Buffalo. Fifth American Revision. Thoroughly Revised to Conform to Advances in the Various Fields of Physiology. Five hundred and thirty-five illustrations, including many in colors. New York: William Wood & Co. Price, muslin, $3.00; sheep, $3.75.

Words from us would be superfluous in describing this work to our American friends, so we will only call your attention to this thoroughly revised edition.

A MANUAL OF OBSTETRICS. By A. F. A. King, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., and in the University of Vermont, etc. Ninth edition. Revised and enlarged. With two hundred and seventy-five illustrations. Philadelphia and New York: Lea Brothers & Co. Price, $2.50.

The principal thing in a work on medical subjects is to be thorough and precise. This work of Dr. King's fully meets these views.

THE PHYSIOLOGICAL FEEDING OF INFANTS. A Practical Handbook of Infant Feeding, and key to the "Physiological Nursery Chart." By Eric Pritchard, M. A., M. D. (Oxon.), M. R. C. P. (Lond.) Second edition. Greatly enlarged and entirely rewritten. Chicago: W. T. Keener & Co., Publishers. Price, $1.50.

In infant feeding there can be no fixed rules, as every case must be judged on its own merits and the food adapted to the physiological requirements of the individual baby.

FACTS ABOUT VIOLINS AND VIOLIN MAKING. By Hans Tietgen. Price, 25 cents.

To any musician, this little booklet on violins is very interesting, and contains many facts. If any instrument is out of order this is the very best place to send it to. 52 Union Square, New York City.

LECTURES TO GENERAL PRACTITIONERS ON THE DISEASES OF THE STOMACH AND INTESTINES, as well as the Allied and Resultant Conditions. With Modern Methods of Diagnosis and Treatment. By Boardman Reed, M. D., Philadelphia, Pa., Professor of Diseases of the Gastro-Intestinal Tract, Hygiene and Climatology, in the Department of Medicine of Temple College, Philadelphia, etc. Illustrated. New York: E. B. Treat & Co. Price, cloth, $5.00; morocco, $6.00.

Dr. Reed's work is better fitted to the needs of the general practitioner than any work it has been our pleasure to receive to date. All the newer methods of diagnosis and treatment are given.

PRACTICAL ELECTRO-THERAPEUTICS. By Franklin B. Gottschalk, M. D., Professor of Diseases of Children at Jenner Medical College; Attending Physician German-American Hospital; Assistant to Chair of General Medicine, Chicago Polyclinic; Member of American Medical Association; Chicago Medical Society, etc. Chicago. T. Eisele, Publisher. Price, $3.50.

This work contains 325 pages and 200 illustrations, mostly original. The technique being so well presented that the student and practitioner will find it extremely thorough.

A TEXT-BOOK OF HISTOLOGY. By Frederick R. Bailey, A. M., M. D., Adjunct Professor of Normal Histology, College of Physicians and Surgeons, Medical Department, Columbia University, New York City. Profusely illustrated. New York: William Wood & Co. Price, $3.00.

The text of this work has been made as concise as possible, consistent with clearness, and the more essential elements stand out in a manner to give uniformity, so that it is clear and of great value for class-room teaching.

AMERICAN EDITION OF NOTHNAGEL'S PRACTICE. DISEASES OF THE INTESTINES AND PERITONEUM. By Dr. Hermann Nothnagel, of Vienna. The entire volume edited, with additions, by Humphrey D. Rolleston, M. D., F. R. C. P., Physician to St. George's Hospital, London, England. Octavo volume of one thousand and thirty-two pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $5.00; half morocco, $6.00.

This new volume in Saunder's American edition of Nothnagel's Practice is the eighth to be issued, and appearing within two months after the publication

of the volume on tuberculosis, gives evidence that the publishers intend completing the series at an early date. This, one of the most valuable volumes in the series, is by the famous clinician, Dr. Hermann Nothnagel himself, and is as exhaustive as it is practical.

DISEASES OF THE INTESTINES. A text-book for Practitioners and Students of Medicine. By Max Einhorn, M. D., Professor of Medicine at the New York Post-Graduate Medical School and Hospital, and Visiting Physician at the German Hospital, New York. Second revised edition. New York: William Wood & Co. Price, $3.00.

All physicians who have read Dr. Einhorn's work, "Diseases of the Stomach," should assuredly have this one, as they together comprise the full diagnosis and treatment of the digestive tract. This work supplies a need along this line that has not been fully filled by any other author. It gives the anatomy, physiology, examination and treatment in a lucid way that will prove convincing to the practitioner or student.

THE RIGHT TO LIFE OF THE UNBORN CHILD. A Controversy Between Prof. Hector Treub, M. D., Reverend R. Van Oppenraay, D. D., S. J., Professor Th. M. Vlaming, M. D., with an appendix on a New Method of Operating, Ejecting the Fetus Alive. New York: Joseph F. Wagner, publisher. Price, $1.00.

This book is an authorized and faithful translation of the work, "Het Levensrecht der Ongelboren Vrucht" published by the above three authors, all well known authorities. We have here an exhaustive statement of the pro and con of a very important and greatly mooted subject, both sides being represented by learned and distinguished defenders. A book well worth reading.

THE MOTHERS' MANUAL. A Month by Month Guide for Young Mothers. By Emelyn Lincoln Coolidge, M. D., Visiting Physician of the Out-Patient Department of the Babies' Hospital, New York; Physician-in-Charge of the Babies' Clinic of the Society of the Lying-in Hospital of the City of New York. Illustrated. New York: A. S. Barnes & Co. Price, $1.00.

This is a volume in the Woman's Home Library. Edited by Mrs. Margaret E. Sangster. The author has collated in this volume the knowledge of years of study and practice. It contains, with clearness and brevity the information which every young mother asks. We note its absolute trustworthiness and commend it.

THE GAZETTE POCKET SPELLER AND DEFINER. The Gazette Publishing Co., New York. Price, 50 cents.

A combined English and medical pocket dictionary, though strictly in accord with the spirit and demand of the age, has never before been attempted, and judging by the sale of the first edition, fifteen thousand copies in less than twelve months, it must be appreciated.

A unique feature of the revised edition is that every line contains a word, and every word is defined, thus enabling them to add several hundred words without increasing it's size beyond that of the vest-pocket edition.

A TEXT-BOOK OF PHYSIOLOGY. By Isaac Ott, A. M., M. D., Professor of Physiology in the Medico-Chirurgical College of Philadelphia. With one hundred and thirty-seven illustrations. Royal octavo, five hundred and sixty-three pages. Bound in extra cloth. Price, $3.00. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

Physiology is assuredly the basis of medicine, and should receive the greatest attention of students. This work contains the chief facts of the subject, and all that is necessary for the application in practice. The author's long and wide experience makes his practical ideas of great worth to the reader.

DISEASES OF THE EYE. By L. Webster Fox, A. M., M. D., Professor of Ophthalmology in the Medico-Chirurgical College of Philadelphia; Ophthalmic Surgeon in the Medico-Chirurgical Hospital. With five colored plates and two hundred and ninety-six illustrations in the Text. New York and London: D. Appleton & Co.

This work is based on the author's lectures before his classes in the Medico-Chirurgical College in the last ten years, and abounds in information on the various diseases of the eye. The language is plain, so that physicians can readily understand.

NEW METHODS OF TREATMENT. By Dr. Laumonier. Translated and edited from the second revised and enlarged French edition by H. W. Syers, M. A., M. D., Cantab., Physician to Out-Patients, Great Northern Central Hospital. Chicago: W. T. Keener & Co., Publishers. Price, $2.50.

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Editorial.

Special Notice.

As a very large number of our subscriptions expire about the first of the year, we take this opportunity to remind our readers *that we shall not continue to send the* BRIEF *to those who fail to renew their subscriptions.*

Kindly send remittances promptly, and avoid a break in your files.

Unwise.

Certain chemical houses in Germany are acting unwisely and unfairly in attacking the products of American chemists. Do they really believe that the chemists of Germany are superior to those of America? Do you find any American chemical houses fighting the German products?

The Editor of this journal asserts that there are no chemists in the world superior to the American and English chemists, and as the Editor of this journal was a director of the St. Louis Exposition, he had ample opportunities to examine the products of all countries.

Plant Chemistry.

Under the term organic chemistry is included all those preparations made from plants containing medical properties, although many of them contain inorganic substances as well. A distinctive feature of organic preparations is the impossibility of accurately analyzing such preparations.

The virtues of plants are obtained through particular processes, the result of long study and experiment, so that the value, the identity of the remedy, really hinges on the process used in its preparation.

Before a satisfactory preparation of a plant can be made, it is necessary to know all about it, its nature, structure, the proper soil and climate for its growth, the best time to gather it, and so on. Then comes the study of solvents and manipulation, the getting rid of extraneous matter, etc. Nice judgment is required as to how long each step shall pro-

ceed, how much heat, time, energy, menstruum, shall be used. When the process is perfected, when the chemical assay and an extended therapeutic test, both announce a product of uniform strength and definite powers, then the manufacturer is prepared to introduce it to the profession, under his own name, or he may give it a fancy, trade-marked name for convenience and protection. In either case it is the *process* which gives efficacy and uniformity to the remedy. It makes no difference under what name a preparation is prescribed, so long as it is the product of the same manufacturer.

The doctor should not let himself be deterred from using a good remedy simply because the manufacturer does not give his process. In the nature of things this can not be done. Everything depends upon the process. If that were revealed, the scientific adherence to and painstaking observance of all the complex details involved would be lost, and with it the satisfactory quality of the remedy. The integrity of the process must be upheld. Not only are the business interests and property rights of the manufacturer at stake, but the existence of the remedy as an agent of standard value.

Those plant remedies which give the best results contain not only the organic but the inorganic constituents of the plants. In the great majority of cases the doctor will find it necessary to use preparations which contain all the medicinal virtues of the plant.

Conceit of Man.

People who think that everyone who does not agree with them is bound to be wrong, should read the following:

STOPPING THE PAPER.

An acquaintance met Horace one day and said: "Mr. Greeley, I've stopped your paper," "Have you?" said Horace. "Well, that's too bad," and the old white hat went its way.

The next morning Greeley met his subscriber again, and said: "I thought you had stopped the *Tribune?*" "So I did." "Then there must be some mistake," said Horace, "for I just came from the office and the presses were running, the clerks were as busy as ever, the compositors were hard at work, and the business was going on the same as yesterday and the day before." "Oh!" ejaculated the subscriber, "I didn't mean that I had stopped the paper; I stopped only my copy of it because I didn't like your editorials." "Pshaw!" retorted Greeley, "It wasn't worth taking up my time to tell me such a trifle as that. My dear sir, if you expect to control the utterance of the *Tribune* by the purchase of one copy a day, or if you think to find any newspaper worth reading that will never express convictions at right angles with your own, you are doomed to disappointment."—*Opt. Jour.*

Before we allow ourselves to be angry with people because they differ from us, or are incensed by reading an editorial which says things we do not believe, we should reflect that the free expression of opinion is one of the strongest bulwarks of our liberties. If we stop to think about it, if we abandon the personal attitude for one moment, we can not help recognizing that it is a great blessing, and that men ought to be encouraged to say just what they think, so long as they refrain from abuse.

The normal man hates calumny but admires those who have sufficient courage and independence to say what they think. This age is charged with far-reaching moral cowardice. Too many men are afraid to discuss their opinions. Many evils and abuses flourish for the want of frank discussion. A calm, temperate analysis of situations and conditions, a pointing out of remedies which offer themselves, aids greatly in keeping things straight.

Always beware of the man who wants to compel you by law or the organization which wants to use force. It shows cowardice and smallness of nature when a man or set of men want to do by force what they can not accomplish by logic. As a country gets larger and older, force tries to assume the prerogative, and this is something we have constantly to guard against.

Use All.

No broad-minded, educated physician can confine his practice to any one class of medical preparations. Cases will arise in which he will find it necessary to use decoctions, tinctures, fluid extracts, ethpharmal proprietary medicines, both single and compound pills, alkaloids, synthetics, etc. He can not possibly confine himself to one class of remedies, and do justice to his patient. All are indicated in their proper places.

The observant physician will have noticed that remedies vary with the form in which they are employed. The aqueous and alcoholic extracts of hydrastis differ in action, the various opiates differ, also the derivatives of cinchona bark. A saturated tincture will produce very different results from an ordinary commercial tincture. The doctor will not allow himself to have a prejudice for or against a remedy, but will use that which commonsense and experience demonstrate to be best for his patient, regardless of who makes the remedy.

If a remedy is pure, of uniform strength, and produces definite results in particular pathological conditions, the doctor is not only justified in giving it, but it is his duty to see that his patient gets this remedy whenever indicated.

It is just as much a mistake to use a remedy outside of its powers and indications as to fail to employ it when it is clearly indicated. Dissatisfaction is sure to be the outcome, and a really excellent remedy may be made to suffer in the estimation of the doctor through his own error in not observing the unwritten laws of therapeutics.

To Whom Do You Belong?

In the old days of negro slavery when you met a colored man or woman whose face was unfamiliar, it was a common question to ask: To whom do you belong? who is your master? In these days of organizations, labor, political and professional, where a few men try to control your way of thinking and doing, this question is very applicable—to whom do you belong?

To whom do you belong? Who is your master? Efforts are being made in certain quarters to make the doctor belong to somebody. He is constantly told that he must not use this preparation or that, that he must not take certain journals or do this, that or the other without consulting an organization. When a man so far forgets his independence, his duty to his patients, to pay attention to such bosh, he at once has a master, at once belongs to somebody.

The MEDICAL BRIEF belongs to its Edi or, but the Editor belongs to nobody. He has a right, and will always exercise that right, to prescribe whatever medicines he thinks proper under the circumstances. He will never be controlled, made to do this, that or the other at the direction of somebody else. The Editor admits frankly that he does not believe in governmental control or organization control; he believes in the old doctrine of Jefferson that the country is best governed which is least governed. The same principle applies to individuals.

Every man should learn to do his own thinking, should examine things, and come to his own conclusions. He should never let himself be blindly controlled by anybody. This is especially applicable to the doctor whose responsibilities are heavy. The patient who employs a self-reliant physician gets the advantage of wide reading, hard thinking and free judgment. The man who depends upon himself in all situations of life can always felicitate himself that he is nobody's slave in either politics, religion, medicine, or anything else. There is a joy, a satisfaction in his life, of which the man who submits to machine government knows nothing. The self-reliant man is the ambitious, the progressive, the successful man, for his faculties are constantly sharpened by an unfailing stimulus born of his independence.

What a magnificent utterance was that made by one of our grand old men in the early days of the Republic, when he said: "Better live in a log cabin and be free mentally, bodily and spiritually, than live in the finest mansion on earth, and be owned by some individual or organization."

For Example.

Suppose, Doctor, that your attention is directed to some particular plant or several plants. You go to work and make a fluid preparation from this plant or plants, which you have gathered yourself, while in the fresh state, and you find you get the same good results quoted in the old *materia medica* of the early days of the Republic.

Suppose that you become so interested that you make a special study of these plants, where grown in the greatest per-

fection, the best time to gather the parts needed, get all the information you can, requiring several years study, and that you finally succeed in making a preparation that pleases you. Suppose, then, that you enlist capital or get some manufacturing chemist of experience to join you, and commence to manufacture this preparation. In order to designate your particular process of manufacture from this plant or plants, you give your product a name which is distinctive and easily remembered, and have it trade-marked.

You inform the profession what plant or plants your preparation is made from, and ask them to test your product. After going to enormous expense to introduce your preparation, advertising it to the profession through the medical journals, and giving away free samples, the profession commences to use it, and gradually you get an established business.

Now, is there any reason whatever why you should give away your process, your particular method of manufacturing this product to the profession or anybody else? The profession is not obliged to use it unless it wishes, but physicians are intelligent men, and if they find your product possesses the virtues claimed for it, they will use it, no matter who tells them not to, simply because they are Americans and free men.

If your product is not a good one, all the advertising in the world will not make it go. It is impossible to make a fake remedy continue to be prescribed. The man who believes otherwise is simply a fool.

Now, another question: Is not this preparation as ethical as one which is patented? Think a moment. Any man can make a preparation from the same plants if he wants to. There is no law to prevent it. But he can not use your trademark, or the name of the manufacturer who makes the original preparation. Now stop and think, and you will see where the shoe pinches. The fellow who growls and talks about ethics and monopolies simply wants to get the benefit of the other manufacturer's reputation. Why does he growl? Because he can not buy old materials, make use of the original process of the successful manufacturer, and sell his stuff on the reputation made at the expense of years of hard study, and the outlay of much capital.

The unfairness of this is manifest, for you have informed the profession as to the plant or plants from which your preparation is made, you advertise to physicians only through the recognized medium of the medical press. Nothing would be served by revealing the process. Every sensible man would pronounce you a fool to do so. No man has any right, moral or otherwise, to use your trade-mark any more than he would to manufacture chloroform and call it Squibb's. Is not this so?

Stop and Think.

Examine this copy of the MEDICAL BRIEF, or any other which you may have at hand. Do you know any medical journal that is better than the MEDICAL BRIEF? Do you know any that is more ethical? Do you know any medical journal that has a higher class of writers? If you stop and think a moment you will see that there is no better class of physicians in the world than those who write for the MEDICAL BRIEF .

Then why, you may ask, this continued fight on the MEDICAL BRIEF by a certain class of men, who are trying to injure the BRIEF by arousing the doctor's prejudices? The doctor is not easily prejudiced against anything where he has an opportunity of judging of its merits himself. An intelligent man prefers to use his own judgment in such matters. Every such man knows, too, that there is an ax to be ground somewhere when strenuous efforts are made to injure and discredit a reputable, well-established enterprise of any sort.

These writers evidently think they can prejudice the ignorant doctor and make the mistake of supposing there are many of them.

But this is not answering the question. Why this fight on the MEDICAL BRIEF?

Well, the principal reason is that the MEDICAL BRIEF can not be bossed. It will not wear a slave collar.

The Editor is fair and broad-minded enough to see the virtue in alkaloids, in ethpharmal remedies, in synthetics, in patented German preparations, etc., but

the doctor can not practice medicine exclusively by the use of any one class of medicines.

The doctor, of all men, must be free, and at liberty to use whatever he thinks best for his patient.

Why.

One somtimes wonders why it is that certain plants so highly extolled fifty, seventy, or one hundred years ago, have now passed out of use. If one stops to think about it, the solution is easy. At that time our population was largely rural, the doctor had to gather his own roots and herbs, he studied them and learned how to make preparations from fresh material which possessed great value, and from which he got definite results.

For instance, in the old days, when the doctor used asclepias tuberosa in pleurisy, pneumonia, colds, etc., the results he got were really wonderful. Why? Because the plant was gathered at the right time, and in the fresh state contained all the virtues. It is perfectly natural that the old dried plant sold in commerce nowadays should not produce the same good effects.

It is easy to see why, from the foregoing, when a modern chemist makes a study of a plant, the climate best suited to it, the proper time to gather the parts needed, etc., and puts on the market an active preparation of uniform strength, it gives results widely different from the ordinary article of commerce.

This is true of a great number of plants —barks, roots, herbs and other parts of plants. It explains why it is necessary, in order to get the best results, to use ethpharmal preparations of plants; or, in country towns, employ some retail druggist in whom you have confidence to make special preparations for you.

In other words, the doctor who wishes to get the best results in practice must give the subject of *materia medica* more thought than he ordinarily does. Less ethics and more relief to the patient is what is required for success in the practice of medicine. Study who makes special preparations best. If one manufacturer makes a better preparation of any drug than another, that is something you want to know. Have no prejudice for or against any remedy; it is purely a question of merit.

If a manufacturer makes a reliable preparation and tells you the name of the plant, don't expect him to give away his process of manufacture. Such a request is unreasonable and would do no good. In fact, if granted, it would destroy the manufacturer's business and the guarantee of excellence on which the doctor depends, for then everybody would make it and nobody would make it good.

The doctor should do all he can to stimulate the making of special preparations and throw his influence against those manufacturers who make imitations. The talk about monopolizing remedies is nonsense. There is no monopoly of any drug. Any man can make his own preparation, but he must not sell it on another manufacturer's reputation. To do so is to vitiate a standard on which doctors have come to rely.

Take Norwood's tincture for example. It is a good preparation of veratrum. In fact there is none like it. To ask for the process of manufacture would be absurd. It would compel the manufacturer to stop business. It is unfair to expect the manufacturer of fine remedies to give away his process. Any doctor who will give the matter a moment's thought will see how inconsistent and illogical such a request would be.

Only Sees Flaws.

Did you ever stop to consider how unfortunate the pessimistic faultfinder is—the man who always sees flaws and imperfections everywhere?

Not long since, while calling upon a professional friend of ours, we were asked to look at the walls and ceiling of a room recently painted by an artist celebrated for this line of work. The work was beautiful, and most artistically done. We expressed our appreciation of it, and while discussing the subject, a pessimistic friend was shown into the room. When asked what he thought of it, instead of remarking on its beauty and artistic finish, he immediately spied a few small cracks in the wall, to which he proceeded

to call attention. Passed over all that beauty—rich and varied tones, soft blending, fine lines and delicate curves, a thoroughly artistic conception in which the soul of the normal man fairly reveled—to center his attention on an insignificant crack.

After he had gone, we told our host we had been too much absorbed in the beauty of the work to notice the crack. Said he: "That man is always looking for cracks and flaws in everything and everybody. By the way, he is the most unhappy man I ever saw. He is straightforward, honest, and has considerable ability, but he is such an unfortunate pessimist, he only sees flaws wherever he goes."

The fortunate man is he who can see good in everything. He may see the bad, too, but if he does not dwell on it, if he is not always calling attention to it, it does not make him or others unhappy.

Some doctors are so unfortunate, they can only see the flaws in their patients, and make themselves unpopular, handicap their efforts, by constantly calling attention to their faults and errors. This is something which no patient will tolerate, and is a professional mistake as well. The doctor's aim is to do everything possible to secure the esteem and confidence of the patient. To arouse antagonism and hostility is to make it impossible to do anything for that particular patient.

Never call attention to or arouse evil possibilities. There is good in every mother's son of us, and it is the doctor's cue to find that, and work on and through it. The doctor is more to the sick man than a prescriber of drugs, important as that is; he is a physician to the mind as well.

If a man can not overcome pessimistic tendencies, he should select some other calling than the practice of medicine, for he will do more harm than good in this. Do not overlook the importance of habitually cultivating a happy way of looking at things. It is largely within our own power and choice whether we will be a medium of hope and happiness. Some one of our poets has told us to "be a little blind, and to the faults of others, kind." No man can be truly happy or attain the full measure of his usefulness until he has learned to practice this advice.

Indigestion.

Indigestion is a sort of bugbear to many members of the profession, simply because they attempt to treat all cases alike. When a patient with dyspepsia calls upon you for treatment, it is first necessary to find out the real cause of trouble. One man has indigestion because he eats too much animal food; another because he consumes an excess of starches or sweets.

A man may have indigestion as a result of constipation, caused by inattention to the bowels. He has no regular time to go to stool, consequently the act of digestion is incomplete, and this neglect reacts on the whole function. Another man owes his indigestion to excessive use of stimulants, tea, coffee, alcoholic beverages or tobacco. Still another may suffer from an accumulation of mucus in the bowels.

Want of outdoor exercise is a very common cause of indigestion. The habit of bolting the food and gulping down large quantities of ice-cold water at meal times are also considerable factors in bringing about this troublesome complaint. Eating between meals and tasting favorite dishes after hunger has been satisfied weakens the digestive organs.

The majority of people suffer from some form of indigestion, for which there is a multiplicity of causes. No permanent relief can be given unless the cause is gotten at. The physician who would be successful can not have hobbies and fads about the treatment of indigestion. He must lay theories aside and study the case. Treatment must be based on the actual condition of the patient.

The fact is, indigestion offers a first-class field for the specialist. Many chronic diseases hinge on some old neglected form of indigestion. Many people tolerate chronic indigestion in the belief that their sufferings are inevitable; others because they have doctored unavailingly. Set yourself to get at the facts when consulted for the relief of indigestion. Do not attempt to treat on conventional lines, or to have one treatment for all.

Especially do not overlook the real value of olive oil in the mucous form of indigestion.

Walking Before Breakfast.

The Editor of this journal is satisfied by personal experience that a brisk walk taken half an hour or an hour before breakfast in the early morning air is one of the best things people can do to keep up the general health, especially when accompanied by deep breathing.

The expansion of the lungs, quickening of the circulation and oxygenation of the blood gives a feeling of exhilaration which lasts all day, The exercise gives one a keen appetite for breakfast, and the old idea that a good breakfast is an excellent thing for a man is as true now as it ever was. The man who can eat a good breakfast with relish has something to sustain him in his work, and is more fit to cope with difficulties than the unfed man, the man who breaks his fast with nothing more substantial than a roll and coffee. The coffee has no value as nutriment, and the stomach is forced to go without sustenance until it becomes weak and unfit for the task of digestion.

Aerate and redistribute your blood by means of a walk before breakfast, then you will be able to eat and digest that meal without trouble. Such a preparation for the day's work is invaluable.

There is an old idea down South that taking the air before breakfast is apt to result in malaria, probably from the heavy dews and foggy condition in certain sections before the sun gets high. However, the brisk exercise will more than counteract unfavorable atmospheric states, and air is air, and has a real value, from which nothing can detract.

The benefits of pure fresh air are, in fact, undeniable, and easily proved by experience. Everybody should advocate taking the air before breakfast. The only harm we can see from this practice is that doctors will have less to do.

Idiosyncrasy.

It is in the experience of every practitioner that drugs do not have the same effect on all individuals. These idiosyncrasies are not only peculiar to the individual, but run through whole families. Just why certain drugs do not act as well in these cases is not known, but the fact must be taken into consideration. Therefore, it is well for the physician to be observant and study these peculiarities and idiosyncrasies in each of his patients.

In some patients, too, the effect of a drug is produced very quickly, while in others it is necessary to wait a long time. The doctor who does not know this will sometimes stop a particular medicine too soon when he should continue it until he gets the desired effect.

In order to know just when some idiosyncrasy or peculiarity of constitution is at fault, in order to study them to advantage, and know how to allow for them, the physician must be sure that he uses a good preparation of the drug which he prescribes.

Whether you believe it or not, substitution is very prevalent. If you prescribe a certain remedy, and it does not have the effect which you expected in many cases, it is because the preparation is not genuine; some imitation has been substituted for the original ethpharmal medicine. If you take pains to avoid this, you can easily distinguish what is true idiosyncrasy.

Druggists, as a body, are undoubtedly honorable men, but this profession, like all others, contains its black sheep, and a percentage of druggists are ruthless substitutors.* There is no just-as-good in any department. It is the business of the doctor to avoid the drug sharp as an enemy both to him and his patient, preying on the reputation of the one, the life and health of the other.

It is impossible to get at the peculiarities of a patient—a knowledge of which is of so much value in producing definite results—if prescriptions are sent to a substituting druggist.

It is always well, when a medicine you are in the habit of prescribing disappoints you, to investigate where it was obtained before ascribing the result to idiosyncrasy. Give the matter close scrutiny before deciding.

A Dangerous Thing.

Pope tell us, and it has become a maxim with unthinking people, that a little knowledge is a dangerous thing. This was the doctrine taught by the Church in the dark ages. If you wanted to know

anything about religion, you should consult the priest; knowledge was his prerogative. But do we do it very much nowadays? Have we not come to the conclusion that we would rather brave the dangers of a little knowledge than go without? Is ignorance any longer a synonym for bliss? Is it not, in fact, more knowledge all the time that a man wants whether he is a doctor or otherwise?

The more knowledge a man has of religious matters, the more he knows about the laws of Nature, and the certainty of having to suffer the inevitable penalty of every violation of such law, the better man is he. Neither the wearing of beads nor the paying of tithes will enable a man to escape the penalty of breaking one of Nature's laws, whether physical, mental, moral, spiritual, or financial.

The Editor of the BRIEF believes, and has said at some time, that the intelligent man makes the best patient. It is the intelligent man who continues treatment, and co-operates with the doctor in the various measures which the latter finds necessary. The intelligent man has faith in the ultimate outcome of treatment where he can not see any immediate benefit. The ignorant man quits the doctor and goes to the fortune-teller.

The layman who has some understanding of health and disease can realize the importance of consulting a physician the moment something goes wrong. He does not wait for a vicious pathological circle to be set up, and his vital forces undermined; he goes to his doctor at once, and continues treatment until he is restored to the normal state. He knows something of the difficulties of diagnosis, and the necessity of giving the doctor time and the fullest opportunity for studying the case. He understands the importance of carrying out instructions exactly. The percentage of deaths, of chronic and incurable ailments, is enormously greater among the ignorant classes, and largely because they do not understand the importance of early and continuous treatment at the first appearance of trouble.

The man who tries to make you believe it is for your interests that your patrons be kept in ignorance of all that pertains to medicine, must have some other reason than the interest of the profession for what he says. If you run your mind over the list of your patrons, you will realize at once that the more intelligent they are the less trouble you have with them. The man who is trying to make you believe otherwise is playing a card which is easily trumped, for it is not true that medical knowledge on the part of the laity hurts the doctor in any way.

State Medicine.

The proper function of government is to protect the rights of the individual, and to carry out those principles of common law derived from the experience of the ages. The existence of an oligarchy within a State having a grant of plenary power to enforce its regulations is dangerous to the welfare of that State. State medicine is every whit as bad as State religion.

A board created to look after the public health, and given unrestricted authority and power, is capable of a great deal of mischievous activity, for it proceeds on the basis that all conflicting ideas, rights and interests must yield to regulations which it regards as necessary, and which are, in many instances, purely arbitrary. Such a board is apt to assume the truth of its position, as the Catholic Church assumes the infallibility of the Pope, and it is perfectly indifferent to the sacrifices of individual rights or property interests demanded by the enforcement of such regulations.

State religion did not hesitate to persecute, torture, or burn heretics, nor to confiscate their property. Church dignitaries had but one idea—to extend the faith, to increase the power and wealth of the Church. So with the Health Boards. The health of the people becomes a fetish before which they will immolate all. Apparently they never stop to consider that even if health could be guaranteed to us it is scarcely worth having at the expense of liberty. Most of us would prefer to take our chances and keep our rights.

There is no appeal from Board of Health decisions. Their power is absolute. Their ranks are often recruited by the political doctor, and their rulings are frequently based on fads.

They have it in their power to tear a child from its mother's arms, to separate

husband and wife, to force a teacher to give up his or her occupation by labeling them as "suspects." Health Boards have assumed the contagiousness of consumption, although some of the most eminent men in the profession, men of the widest experience, deny it.

Health Boards may and have established regulations which depreciate property, and practically destroy the profit of certain industries, entailing costly litigation, and the unsettling of trade conditions. They can find a pretext, if they want to, to make war on any enterprise, and such unrestricted power offers the opportunity for unlimited blackmail.

This is not saying that Health Boards abuse their powers, or are dishonest; no doubt many of them accomplish a great deal of good, but so long as human nature is what it is, so long as medicine is an inexact science in which fallacies are continually springing up, it is wrong and dangerous to grant plenary power to any body of men, placing the rights of the individual absolutely at its mercy.

The reformer never sees anything in himself to reform; liberty has been the watchword of the greatest of tyrants, and the name of religion is stained with the darkest of crimes. Men have been taught over and over the corrupting influence of unrestricted power. Men should rely entirely upon themselves for their welfare—the delegation of any right or power to the government means a corresponding loss of liberty.

Abuse.

It is queer that some men abuse everyone who differs from them in politics, medicine, religion or anything else. It particularly shows a want of commonsense when a man abuses a competitor in the same line of business. It takes little wit to see the reason for it, and it is certain to react against the man who does it.

The most ordinary knowledge of human nature should preserve a man from this error. He may allege various lofty reasons for his act, but no one will believe him. Men do not raise the level of any business or profession by throwing mud. Ability does not worry over ethical considerations any way. Real ethics are intrinsic, inseparable from the deed, the result. Ethics are not taken from nor added to a thing, at the will of man, but inhere in their very nature. Whatever persists and has value is ethical, whether it conforms to some people's notions or not.

Advertisers often make a mistake similar to the above. The successful advertiser limits himself to saying what his particular product is and does. If he makes a plow, he does not call attention to any other man's plow in his advertisement. It is not his object to impress the public with the fact that there are two plows in the market. It is a great mistake to compare one's own make with another's, even to the disadvantage of that other. You simply advertise the other man, for everyone knows how to discount the manufacturer's preference for his own product.

In other words, the man of good sense, possessing a well-balanced mind, will attend to his own business, and let the other fellow alone. The wisdom of this is constantly demonstrated in every department of life, but some men are so narrow-minded they can never learn. The great principle fundamental to all success in life is to attend to your own business with all your might, and let the other man do the same.

We are glad to say that few American doctors are guilty of abusing their competitors. If the other man chooses to abuse you, let him alone. People will find out the truth. Do not waste time chasing lies. They never do any harm. Do your duty to your patrons as you see it, and things will come out all right inevitably.

The Abnormal Slanderer.

What is the matter with the man who habitually slanders other people, who can see no good motive in anything they may do, and who is always attributing evil of some sort to all who come within his knowledge?

The slanderer possesses an extraordinary fertility of invention, which is so perverted that he is always interfering and meddling in other people's business. His tongue is loose, and dearly loves to roll the shortcomings of others as a sweet morsel for his delectation.

Is there any man who works more mischief in the world than the one who is always impugning motives, who insinuates, who is always trying to run the other man's business to the neglect of his own. The man who robs you of your good name, is he not really more of a robber than one who takes your diamonds and money? Is he not worse, even, than the man who enters your house without warning, knowing that he has small-pox in his family? The man who, deliberately and with malice aforethought, sets himself to make discoveries in regard to your business so that he may speak evil of you under the plea of philanthropic interest in the welfare of others, must be abnormally developed.

Sometimes the fool followers of such a man, unable to appreciate the true significance of his course, give him sympathy and encouragement. But there is one element in human nature which the slanderer who habitually attempts to injure and defame his competitor overlooks, that is the element of fairness found in most men. Whenever a normal man sees another man or thing continuously abused, it naturally makes him look on the other side. The slanderer overreaches himself.

This is well illustrated by the successful careers of Roosevelt and Cleveland. The bad things said about them really made friends for them.

It is a confession of want of brains when a man bends all his energies to try to discredit his competitor instead of going to work along legitimate business lines to build up his own interests. When a man's competitor is always on his tongue, when he is constantly criticizing his methods, and impugning his motives, the discerning begin to look for the nigger in the woodpile. No amount of fine sentiment can disguise the fact that he has some axe to grind.

The sensible man will not trouble to deny calumnious allegations, innuendoes, slurs and so on. All he need do is wait to see the slandered confound himself. Every man with independent mind with the courage to express himself freely, is certain to draw down upon his head the condemnation of the narrow, and to make himself a target for the arrows of small-minded men, scandal-lovers, and those who think they see an opportunity to help themselves by stirring up prejudice, and fomenting controversy. This class of people forget, however, that the great majority of mankind admire and believe in the independent, courageous man.

[Written for the MEDICAL BRIEF.]

Reminiscent Chats.

BY OLD DOC.

Hello, boys, what's doing up your way? This has been my busy week, but I'm going to fire a few remarks at you while I wait for Jim to hitch up.

Most hernia patients think so long as they have on a truss they are all right, but you boys want to bear in mind that most of the cases of strangulation occur in these very same people. When you fit on a truss, be sure to caution your patient that he carries something about with him which may become a source of danger, and that he must be careful.

Say, don't give morphine to patients who have been injured, unless there is complaint of pain. Sometimes the shock acts as an anesthetic.

In nervous prostration many of the symptoms are due to low or irregular blood pressure. A good nourishing diet, containing meat, with regular moderate exercise, followed by baths, rest and deep massage, will greatly benefit these cases.

Say, boys, a first-class laxative for gouty people consists of equal parts epsom salts, sublimed sulphur and bitartrate of potash, one to two teaspoonfuls in half glass of water before breakfast.

Neurilla is the best thing I have ever tried for nervous irritation proceeding from an over-active state of the sensorium. And the beauty of it is that it acts without causing any by or after-effects. Your patient simply gets relief, and that is all there is to it.

Say, boys, here is a recipe for a No. 1 eye water: Take just enough of a chemically pure sulphate of zinc to impart a slight astringent taste to the water, and then add enough c. p. lead acetate to make it a little milky. This is fine for ordinary cases of sore eyes.

If you are ever called upon in an emergency to tap the bladder of a fat man,

look out for the wrinkle which runs around the abdomen just above the pubes, and tap at its crossing with the linea alba.

Rectal fissures will generally heal quickly if brushed with carbolic acid followed by alcohol, and then packed with gauze.

Many cases of weakness and debility, tardy convalescence, and so on, are due to a feeble circulation. I have such patients carry a vial of cactina pillets, and take one or two every three hours.

A very good plan, and one I have followed for years, is to begin your treatment in acute cases, and especially where the patient is feeble, by giving the pillets at intervals right along. They do not interfere with anything you may decide to give later; you are doing something to satisfy the patient and family, and you have a little time to study the case. Many a doctor prescribes the wrong thing for want of time to think.

Say, boys, applications of a good strong solution of saltpeter will shrivel up cold sores on the lips. This is a good thing to know, as they are often very painful.

When water collects on the lungs, give strychnine and atropine alternately by hypodermic injection.

Where you have a dry cough, which is made worse by lying down, and gets better when the patient is up, incorporate hyoscyamus in your cough mixture. In most cases, and particularly where there is any feverishness or lack of secretion, etc., respiton should be given in addition.

Say, boys, uterine headache, which is usually complained of in the top of the head, may often be relieved promptly by elevating and supporting the womb by means of a tampon. Add to this a good dose of salts, and directly your patient is very comfortable.

Severe pain in the heart, with feeble action, a slow and irregular pulse or rapid palpitation, and particularly if there is a murmur, showing regurgitation, call for nitro-glycerine.

Say, boys, where you find an idiosyncrasy which prevents your using cocaine, try guaiacol. It answers very well in many minor operations.

When you shake hands with a man, you often get an indication of his condition. If his hand is hot, red and dry, you instinctively think of diabetes; if it is thin, hot and moist, tuberculosis occurs to you.

Say, don't forget that repeated applications of the oil of eucalyptus will quickly relieve the pain of chilblains and cure same.

Many people suffer a great deal from neuralgia of the fifth nerve. Muriate of ammonia is almost specific in this trouble. Give it in large or small dose, with brown mixture, or in conjunction with belladonna. If the conjunctiva is reddened, if there is a confused and dull state of mind, aching of eyes and brow, belladonna is particularly indicated.

Say, boys, a first-rate local application to allay itching of the skin is made by adding two drachms of salicylate of soda to a pint of water. Use freely.

Suppression of the periodical flow in women when caused by cold, emotional disturbance or passive congestion of the uterus, can be promptly relieved by giving one to three drops each of a reliable tincture of cimicifuga and gelsemium every hour or two. It is equally valuable in suppression of the lochia after delivery.

Some time ago I read in some of the journals how to remove a ring from a swollen finger. I had occasion to try it the other day, and it is O. K. Rest the elbow on a pillow as if the patient was to be fitted with gloves, at same time rubbing the finger gently down in direction of elbow. Then soap it well. Push a piece of coarse thread through the ring, and holding the lower end firmly, wrap the other snugly around the finger and hold tight, then take hold of the lower end and begin to unwind. The ring comes off without any trouble.

Well, I must be off. So long, boys.

I send you one dollar for my subscription to your valuable journal. I have been taking the BRIEF for twenty-five years, and have not missed a year since I began with it.—C. G. JONES, M. D., Ellaville, Ga.

[Written for the MEDICAL BRIEF.]

Treatment of Ulcers of the Leg.

BY ALEXANDER LYLE, M. D.,

Adjunct Professor of Surgery, New York Polyclinic Medical School and Hospital, New York City.

In the treatment of ulcers of the leg it is always of paramount importance that the cause of the condition be ascertained if possible.

A diabetic, syphilitic or tuberculous ulcer will demand that more study be given to the constitutional, than the local treatment, and if this is not most closely watched the local treatment will be almost useless.

Constipation or any local condition tending to retard the venous flow must be corrected and the whole leg rendered surgically clean by means of a liberal use of green soap and brush, followed by ablutions of a hot bichloride of mercury 1-1000 solution.

If the ulcer be of the varicose type it will be necessary, either to confine the patient to bed during the course of treatment with firm bandaging extending from the toes to the knees, or preferably excise the varicose veins and effect a permanent cure.

The foul gangrenous sloughing ulcers are best treated by an application of pure carbolic acid neutralized by alcohol. Carefully dried and a dressing consisting of sterile gauze saturated with five per cent of balsam of Peru in crude castor oil applied, this covered with rubber protective and tightly bandaged. (This dressing was introduced by the late Dr. Van Arsdale, of the New York Polyclinic Hospital, and is most valuable in all freely discharging ulcers.)

When the sloughing is controlled and the amount of discharge markedly diminished, antiseptic dressings of bichloride 1-1000 or carbolic acid 1-40 may be substituted until the parts are in a fairly healthy condition.

The base of these, as of nearly all chronic ulcers, is made up of an unhealthy granulating mass, and it is impossible to effect a cure until this has been removed—in some cases the granulations lying immediately upon, or even containing, nerve filaments, are extremely painful, and cocaine must be judiciously employed. A one-half of one per cent cocaine solution freshly prepared and warm is injected around the periphery of the ulcer and beneath its base until the whole area has been thoroughly cocainized. With a sharp curette all unhealthy tissue is removed, the ragged edges, etc., trimmed with scissors, and the whole wound rendered surgically clean. Bleeding is controlled by pressure or hot antiseptic solutions, and the surface finally dried absolutely, not by mopping only, but by insufflation of hot air, as it is necessary to have a clean and absolutely dry field. Germs can not live or multiply in a dry medium, and the more nearly dry we keep the wound the less likelihood is there of germ proliferation.

Into the ulcer is dusted powdered boric acid sufficient to fill it to the skin level, and over this are placed straps of diachylon plaster drawing the edges together as much as possible. Sterile gauze or cotton and a snug bandage from the toes to the knee complete the dressing, which should be changed every second or third day according to the demands of the individual case. In changing the dressings do not use solutions of any kind, but wipe away discharge and clean wound with pledgets of dry cotton or gauze.

If the margin of the ulcer be inflamed it may be advisable to relieve this by application of twenty-five per cent ichthyol ointment for a few days before resorting to the above dry treatment.

Syphilitic ulcers may best be treated with applications of bichloride 1-1000 or blue ointment fifty per cent, and in all cases regardless of the class to which it belongs bandaging should extend from the toes to the knee, and the foot kept elevated as much as possible.

1043 Madison Avenue.

Enclosed please find one dollar. Kindly continue the BRIEF to my address. Can not keep abreast of the medical science and fail to constantly read the BRIEF.—J. A. VISER, M. D., Pike, Texas.

THE MEDICAL BRIEF

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[Written for the MEDICAL BRIEF.]

The Treatment of Uterine Hemorrhage Caused by Fibroids.

BY SEPTIMUS SUNDERLAND, M. D., M. R. C. P.,

Obstetric Physician at the French Hospital, London; Physician Royal Waterloo Hospital for Children and Women, London; Chief Physician Royal Maternity Charity of London; Corresponding Fellow of the American Climatological Association, etc., etc. London, England.

Fibroid tumor or myoma of the uterus is one of the most important causes of uterine hemorrhage, oftentimes most difficult to treat, and certainly one which, in the present day, requires the most careful consideration as to treatment, owing to the great advances which have been made in the surgical art during the past few years.

Uterine myomata are extremely common. It is probable that twenty per cent of all women over thirty-five years of age have fibroid uterine growths, although in many instances they do not cause trouble. The actual mortality is unknown.

Mr. Roger Williams considers that the deaths due to fibroids, excluding operation cases, amount to one in each two thousand cases, and that the number of those who suffer severely as the result of such growths is small, probably one in five hundred. They are most common between the ages of thirty and fifty. Bearing in mind the proportion of married to unmarried women, it is found that a large proportion of women suffering with fibroid tumors are single, and amongst the married the tumors are more frequent in sterile women. It appears that maternity lessens the chances of the occurrence of fibroids.

During pregnancy they increase in size, become softer and more vascular, and shrink again during involution.

The menopause is often delayed for several years, during which time the tumors may continue to grow, and the incidental hemorrhage and other troubles may increase rapidly. If the patient pass satisfactorily through the protracted or delayed menopause, the tumors generally decrease in size. Fifty-two to fifty-four may be roughly stated as the age at which the menopause occurs in such satisfactory cases. Bleeding from fibroids is sometimes alarming, but seldom fatal; sudden flooding is more common with malignant disease.

Menorrhagia, possibly with dysmenorrhea, is generally the first symptom of fibroids. (Menorrhagia is sometimes present with ovarian tumors, and it is not always easy to distinguish a soft edematous fibroid from an ovarian tumor.) After a time the bleeding may persist in the intervals between the catamenia. Sometimes irregular hemorrhages occur, or the bleeding will persist for months, and then appear only at the menstrual periods for a time.

The amount of loss varies to an extraordinary degree, without any direct ratio to the size of the growth. Sometimes one sees a small fibroid uterus, causing almost continuous bleeding, whilst a large growth

will, after gradually increasing in size over a period of years, still cause a menorrhagia of perhaps double or treble the normal amount of menstrual flow, and the patient with care and suitable treatment may, other complications being absent, carry her tumor with comparative comfort to the end of her life.

Mr. Roger Williams, after exhaustive research, definitely asserts, "Myomata have no special proclivity to malignant disease," and that "they are less prone to originate such changes than are the morphological elements of the uterus itself." This is important, for although occasionally malignant disease may occur in a myomatous uterus, there can be no argument to hurry on the operation of extirpation, through fear of the supervention of cancer.

Treatment.—When menorrhagia or metrorrhagia is a marked symptom of uterine myomata, the choice of treatment of the hemorrhage lies with the following, or a combination of two or more:

1. General and dietetic. 2. Rest and postural. 3. Local. 4. Drug. 5. Climatic. 6. Minor operative. 7. Major operative.

1. *General and Dietetic.*—Everything should be done to keep the patient in the best possible condition for bearing the strain of the hemorrhage, one great point being to attempt to relieve the attendant anemia. I shall refer to that when speaking of drug treatment. Warm clothing should be advised, and in many cases, the use of an abdominal belt will be found beneficial. It is uncertain to what extent diet may be serviceable, but the too free use of alcohol and red wines is to be deprecated, as also a dietary consisting largely of meat. During the catamenial flow, fluids should be taken in restricted quantities.

2. *Rest and Postural.*—Exercise should be abstained from, if possible, for two days preceding the usual onset of the catamenia, and the patient should rest in bed or on a couch during the first two or three days of the flow, or longer, if possible. Between the periods, exercise likely to cause increased flow of blood to the uterus should not be encouraged, such as the use of the sewing machine. With regard to bicycling, I must say I have patients with bleeding fibroids who insist on bicycling, and whose condition does not appear to be aggravated by it. Possibly the resulting general improvement in the circulation, both venous and arterial, may account for this.

I am convinced, from experience, of the utility of insisting that blocks of wood four to six inches high should always be kept under the lower legs of the bed or couch. If retroflexion or retroversion exist, the patient should go to sleep lying on the abdomen, or lie as much as possible in a similar position when awake.

In cases where the tumor descends into the true pelvis, efforts may be made to press it up, and a suitable pessary inserted. It is remarkable what relief is sometimes afforded by posture and pessaries; inconvenience with the bladder and rectum are frequently corrected by these agents.

3. *Local.—Pessaries*, preferably celluloid or metal, are useful when flexions are present, especially when pelvic discomfort is experienced.

Hot Douches at a temperature of 115° to 120° F. may be used after the first day of the flow and continued two, three or four times daily till the period ceases. In some cases they seem to do good; in others only a temporary effect is produced.

For their satisfactory application, the patient should lie on her back. At least a gallon of water must be used, and care should be taken that the nozzle of the vaginal tube is not passed too far. It is a common occurrence for women to give themselves unnecessary pain by impinging on the uterus with the vaginal tube.

Plugs, either plain glycerin or glycerin with fifteen per cent of ichthyol, may be used once daily for a week preceding the flow, with the hope of withdrawing serum and lessening congestion of the uterus.

Tamponing the vagina through a speculum is useful in severe cases of menorrhagia, and may be done once daily during the flow with clean cyanide gauze, well packed around the cervix, and in the vagina. An antiseptic douche should be given before applying a fresh tampon.

Intra-uterine applications would be limited to a very few cases of small fibroids in which bleeding has not improved under other treatment; a solution of chromic

acid (one drachm to the ounce) could be applied, but I do not recommend this treatment as a routine procedure.

Dilating, tenting, or plugging the cervical canal.—In the occasional very severe and dangerous hemorrhages from fibroids, the cervical canal should be plugged with iodoform gauze, or a tent inserted, and the vagina tamponed.

4. *Drug.*—The effect of treatment by drugs is variable. In some cases very little effect appears to be produced, but in many instances the bleeding can be kept within bounds, and marked diminution in the menorrhagia is noticed. The old-fashioned ergot really appears to hold the first place on the list of drugs. The administration of drugs with the idea of absorbing the growths is probably useless, but a long course of small doses of ergot twice or thrice daily, either alone or combined with nux vomica or strychnia, given continuously for months, will, in many cases, check the bleeding and control the growth. The difficulty is to ensure that the patient takes the medicine, so that it is perhaps more advisable to administer the extract of ergot in pill form, one grain of ergotin twice or thrice daily; when the catamenia appear, the dose may be doubled or trebled for a few days. If patients will not take medicine, a hypodermic injection of ergot may be given in the buttock, or over the abdomen, three drops once daily of the British Pharmacopeial solution.

The injection should be specially prepared for the case, and the skin and syringe carefully sterilized before each injection. After a few weeks, if no uterine colic be produced, the daily injection may be increased gradually up to six drops. Sometimes the hypodermic injections cause uterine pain and irritation.

I have never seen, or at least I have never recognized, any injurious effects from the continued use of ergot extending over a period of several months, in women taking it from various causes. Occasionally, with large doses, uterine pain may be complained of, but the addition of two or three drops of laudanum to each dose will usually check it. I have often given drachm doses of ergot for months at a time to patients with subinvolution or fibroids; occasionally they complain of headache and giddiness, and some women say they get headache after small doses. When heart disease is present, ergot should be given with caution, and it may be entirely contra-indicated in some cardiac cases.

The ammoniated solution may also be advised.

Time back I prescribed a standardized preparation of ergot; called ergole, but could not convince myself that its action was any better than ordinary liquid extract, if the latter be obtained from a good chemist.

In sudden severe floodings, a hypodermic injection of citrate of ergotinin (one-fiftieth of a grain) could be used, and another one-fiftieth could be injected in a bad case. The amount of the dose of ergot when administered continuously for a time, should be regulated by the amount of bleeding.

In some cases of menorrhagia from fibroids it will suffice to give the ergot during the menstrual flow only; say a drachm of liquid extract, or three to five grains of ergotin, three times daily till the flow ceases.

Liquid extract of hydrastis canadensis in doses of twenty minims will be found useful in some cases given continuously for a long period. In cases where ergot causes pain, a combination of hydrastis, viburnum prunifolium and Jamaica dog-wood, the latter a sedative and anodyne, will be found useful.

Stypticin (dose one-fourth to one-half grain), a coined name for hydrochloride of cotarnin, which is a product of the opium alkaloid narcotin, has acquired some reputation during the past few years as a uterine hemostatic, and may be tried if ergot and other drugs fail to lessen the bleeding. A very good combination is stypticin, ergotin, hydrastine hydrochloride, and cannabin tannate, in the form of pill or tablet; one, two or three may be given three times daily. The cannabin tannate has also a reputation for menorrhagia. These would be specially indicated if ergot alone should cause pain and should not seem to check the flow.

Calcium chloride, acting by its power of favoring coagulation of the blood, is recommended by some writers. It should be given continuously between the periods.

The dose is from twenty to forty grains. Dr. John Campbell, of Belfast, recommends it in combination with hydrastis.

The bromides will be found useful in neurotic and excitable patients, or when there is ovarian irritability, and may be combined with ergot or other drugs. Saline purgatives are useful, if constipation be present.

One important thing to remember with regard to drug treatment is that in cases where one is endeavoring to control the growth, medicines must be given for months at a time. When endeavoring only to check the bleeding temporarily, larger doses must be given.

Iodipin (iodine in sesame oil) has been used subcutaneously during the past eighteen months by my friend Dr. John Shaw-Mackenzie, who claims success in the treatment of some of his cases. He also recommends the intra-muscular injection of benzoate of mercury.

The treatment of the anemic condition produced by severe menorrhagia of fibroids is often difficult and the doctor is in despair; no sooner is the patient's blood getting into a more healthy condition than on comes the menorrhagia and his patient's strength again is sapped.

With regard to the use of iron during the interval, I certainly think it may be tried, especially if ergot be administered at the same time, although in some cases I have felt sure it did increase the menstrual flow, and was obliged to discontinue its use. I have a fancy for the peptonates of iron, and the Fer Robin, a French preparation, I consider excellent.

In some cases then, in preference to iron, the patient should take raw meat juice or some of the popular preparations of blood now sold by chemists. I can strongly advise cod-liver oil, or some of the extracts of cod-liver oil now to be procured.

5. *Climatic and Spa Treatment.*—In the London *Lancet*, of October 15, 1898, I published a paper recording the beneficial effects I had noticed on uterine hemorrhage in patients who had sojourned for a time at high altitudes. I can, therefore, confidently recommend prolonged residence at a high dry bracing place where the soil is dry and the air is as free from moisture as possible.

In order to improve the anemic condition of patients, advantage should be taken of fresh air and sunshine, and they should sit or lie out in the open air as long as possible in suitable weather.

In England the bromo-iodine waters of Woodhall Spa, in Lincolnshire, have a certain reputation for the treatment of myomata, and a systematic course of douching and baths, combined with the change of air, is sometimes of benefit in controling the growths and the hemorrhage.

The similar waters of Kreuznach, in Rhenish Prussia, are not so strong. Many women with fibroids go there for treatment, but the climate is somewhat relaxing, as Kreuznach lies in a valley. Recently a new spa has been brought to notice at Salzomaggiore, in Italy, with similar waters.

6. *Minor Operative.*—If a polypus growing from the cervical canal present at the external os, it should be removed with a snare or cut away with scissors, or a fringe of polypi around the cervix may be best treated by removing a portion of the cervix. When the cervix is found dilated, and intra-uterine polypus is suspected, the cervix must be further dilated, and the polypus, if present, removed.

In the small fibroid uteri, which are causing hemorrhage sufficient to injure the health of the patient, I always advise a preliminary dilatation of the cervix and exploration of the uterus with the finger, and curettage of the uterus. In some of such cases an ingrowth of myomatous tissue will be found in the cavity, possibly polypoid in form, in which latter case it can be removed by a snare. If the ingrowth is sessile it should be left without attempting removal, though it is possible in certain cases to shell out such a growth, but the risk of perforating the uterus does not, in my opinion, justify such a measure.

Assuming a polypoid growth be found and be removed, the patient has a good chance of cure of the hemorrhage, though, of course, there may be other fibroids present which may after a time cause renewed bleeding, or another polypus may form.

If the endometrium which is scraped away be found very thickened, the prognosis as to diminution of the bleeding is

in my experience very good. In such small fibroid uteri I would never advise hysterectomy without a previous exploration or curetting. I know it is the fashion nowadays amongst some surgeons of undoubted skill, and whose mortality in the operation is very low, to remove many small bleeding fibroid uteri, but I most strongly urge that in such cases as I have just described, the patients should not be exposed to the risk of a major operation without a previous exploration and curetting, the risk of the latter being only slight. In bygone years, when removal of the ovaries for bleeding fibroids was such a common operation, one saw from time to time that the hemorrhage from the uterus continued after the oöphorectomy, and that when an exploration of the uterine cavity was made, a polypoid ingrowth was found.

I am convinced that many of these small bleeding fibroid uteri which get removed by enthusiastic surgeons, would be relieved by the curettage, even if no polypoid growth were found. Especially if there be uterine pain and some dilatation of the cervix, should the presence of a fibroid polypus be suspected, the pain being caused by the efforts of the uterus to expel the growth.

Hemorrhage may occasionally occur from a large fibroid uterus which has previously given little trouble, and may lead the surgeon, not suspecting pregnancy, to extirpate the womb. I have seen the uterus in such a case removed, containing a three months' fetus.

If pregnancy occurs in a large myomatous uterus, and the patient commences to abort, it may be necessary to complete the abortion; this is not altogether an easy matter when the uterine cavity is of large size.

7. *Major Operative.*—(1) Oöphorectomy, In a certain number of cases, removal of the ovaries may be advised, and I would limit this operation to those cases of small uterine myomata which are bleeding profusely (and may be also causing pain), a few years before the average time for the expectation of the menopause, or to similar cases which have reached or passed the average time, assuming always that the bleeding can not be controlled by other measures, and that other symptoms do not suggest the advisability of hysterectomy. An artificial menopause will then in all probability be produced if the whole of both ovaries be satisfactorily removed.

(2) Hysterectomy. It is not often in myomata that the symptom of hemorrhage *per se* will call for extirpation of the womb. It is usually when considered in conjunction with other symptoms and troubles that it turns the scale in favor of a radical operation. It may be as well to mention these other troubles which, of themselves make operation necessary in some cases of fibroids.

They are: (a) Pressure symptoms causing great pain, dysuria, retention of urine, and intestinal obstruction.

(b) Tumors which have become septic, or are inflamed by torsion of the pedicle or other cause. This, of course, includes sloughing or gangrenous fibroids. Cystic tumors become inflamed or twisted most readily, and, therefore, more frequently require removal.

(c) Enormous tumors causing marked deterioration of health.

(d) Certain tumors in pregnant women.

In cases where the hemorrhage is of an alarming character on account of severe floodings occurring occasionally or frequently, or when menorrhagia is severe, causing a debilitated state of the whole system, or if hemorrhage continue dribbling without scarcely ever ceasing, also causing prostration and inability to carry on the ordinary duties of life, the symptom of hemorrhage alone, apart from other causes, may justifiably lead the physician to recommend extirpation of the uterus, either per vaginam or by the abdomen; the choice of the vaginal or abdominal operation would be decided from the size of the tumor, and other circumstances. One or both ovaries should be left, if possible, if the patient be under the age of forty.

In some cases the responsibility of deciding whether a patient shall undergo the operation of hysterectomy will tax the thinking powers of the conscientious and earnest practitioner, who, prompted by the desire to do his duty to his patient, and to guard her from unnecessary risk, as well as to maintain his own reputation

as a sound adviser, may spend many anxious moments before he gives a definite opinion as to the advisability of operative procedure.

He should carefully consider all the circumstances of each particular case. At the present day—within the last few years—some surgeons have been removing the uterus in a somewhat wholesale manner. They consider the operation advisable in a large majority of the cases of fibroids which enter their consulting rooms. These surgeons may be divided into two classes: (1) The matured and brilliant surgeon, whose recognized skill and success in such operations makes him forget that a certain percentage of mortality must ensue. (2) The youthful enthusiastic operator, without experience of the life-history of such cases, thirsting for fame and practice, encouraged by the successes of the first class, he is the more dangerous of the two, the knife is in his hand, and he considers fibroid tumors exist to be removed.

In contrast with these, it is possible to go to the opposite extreme. There are physicians of mature years and senile notions who, looking back upon their past record of good work done and success achieved by methods which in years gone by brought them fame, do not seem to grasp the fact that the discovery of Lister, the work of the brains and hands of many surgeons, and the improvement in technique, have produced a comparatively low death-rate in an operation from which the mortality in their early days was terrible.

Who is more fitted in these extreme cases to guide by his report and observations the opinions of specialists than the practitioner who has watched the case, perhaps, for years?

The judgment of such an one must therefore be guided by his knowledge of the life-history of the patient, of the severity of her symptoms, of her circumstances of life, of her temperament, of what the continuance under the existing conditions would mean to herself and her family. He must not hesitate, when in consultation, freely and fearlessly to offer his own views, no matter whether in the presence of the mature and brilliant surgeon, of the youthful enthusiastic operator, or of the senile physician, whom I have introduced as types only to illustrate my remarks.

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Chronic Lead Poisoning.

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Chronic lead poisoning is so common a complaint, is the bane of so many trades and occupations, is so widespread and produces such disastrous effects on almost every organ of the body that no apology need be offered for dealing with the subject from the point of view of the pharmacologist.

Workers in lead, such as compositors, plumbers and painters, absorb the metal in part by the skin, in part by the lungs, and sometimes from eating with unwashed hands directly with the food. Injurious effects are not uncommon from the application of cosmetics and dyes containing lead to the skin and hair.

Once with the system lead remains for a long time, in small quantities at least, and may be deposited in almost every organ of the body. It passes through the placenta to the fetus, and has been found, not only in the blood and the liver, spleen and kidney, but also in the muscles, bones, and nervous system. In two cases of lead poisoning which occurred at a lead factory in the east of London, the brain contained large quantities of lead, in one of them as much as 117.1 milligrammes of the sulphate. This may account for the serious nervous effects absorption of the metal produces. Ebstein records the case of a man, aged forty-three, a lacquerer, who had had lead colic for eight years; there was no blue line on the gums, lead was not found in the muscles, but it was in the brain.

Lead is eliminated chiefly in the form of chloride through the liver, skin and mucous membranes, especially those of

the urinary tract. This process is markedly promoted by iodide of potassium, iodide of lead, which is excreted with comparative ease, being formed.

The subject of chronic lead poisoning is exceedingly interesting both to the pharmacologist and the practical physician. Some of its symptoms have occurred from the medicinal use of the acetate, and from the continued use of minute quantities rather than from massive doses. Thus Sir R. Christison gave eighteen grains in two days without injurious effects, whilst one-fifteenth grain given two or three times daily for two months caused in a child fatal poisoning. As a rule, the worst effects of any medicinal use of lead limit themselves to an attack of colic, and the severe symptoms about to be described need not be feared from it.

The ordinary "lead colic," or plumbism, is traceable most frequently either to the mechanical use of metallic lead, its oxides or carbonates, or to the ingestion of these salts dissolved in drinking water. After some general malaise, disordered taste, dryness of the mouth, fetid breath, anorexia and constipation, abdominal pain is usually the most marked symptom, but not invariably, for Garrod found it absent in two or three per cent of his cases. When fully developed it is much more intense than ordinary colic; it is referred mainly to the region of the navel (the colon), but severe cramp-like or neuralgic pains dart in many directions, towards the loins, the scrotum, the chest, and the thighs; it has a twisting, tearing character, so that German miners name it commonly "Hutten Katze" ("cat of mines"). It comes on in paroxysms, remaining constant but dull in the intervals, the whole attack lasting from a few minutes to several hours. It is often worse at night, but its recurrence is irregular. Relief is found from firm pressure and altered position, and the sufferer either lies flat on his face, pressing the abdomen or is doubled up, bending his legs, or rises suddenly, still pressing the painful part with his hands, till a violent paroxysm again sends him to bed. Restlessness is extreme, and the whole attention is concentrated on the pain. The abdominal walls are rigid, knotty, and drawn in, there is commonly tenesmus, and the rectum has been felt to contract and relax spasmodically. The liver is retracted, or actually lessened in size; the intestines are drawn into less space from contraction of their muscular coat, and in prolonged cases, after the abdominal fat has been absorbed, the retraction of the belly becomes very striking.

Tanquerel and Burton were the first to describe, as common in plumbism, a dark blue or gray line along the free edge of the gum, together with a brownish coloration of the teeth. Though a valuable sign, and often present, it is not always so, nor does it necessarily imply saturation of the system; it varies in its time of appearance according to the dose, but has been seen within twenty-four hours of administration of one large quantity; twenty to thirty grains, in divided doses, may develop it, and when once seen it is persistent, lasting twelve months at least after its cause has ceased. Similar colored patches may often be found on the buccal mucous membrane. The coloring depends on the formation and deposition of lead sulphide from the sulphuretted hydrogen evolved from particles of food left about the teeth, and it may be prevented by perfect cleanliness. It is usually distributed in rounded loops corresponding with the vascular papillæ of the mucous membrane, and depends on small pigmented granules, some of which are external to, and others within the small vessels. It is probable that the gas from the decomposition of food particles diffuses into the textures of the gum, and then combines with lead circulating in the blood or lymph, so that particles of lead sulphide are really precipitated. A similar condition may be present in the intestinal membrane. The administration of iodide of potassium sometimes induces its rapid development.

I can not so readily explain the pathology of the colic. It is in part dependent on constipation, for it is relieved when purgation is secured; yet Briquet claims to have relieved it more quickly by Faradism of the abdominal wall without any aperient effect. It is dependent partly also on irregular muscular contraction of the intestinal tube, and is

partly enteric neuralgia. Harnack, using the triethylate of lead, which can be injected directly into the blood, found that the nervous ganglia in the intestinal wall were stimulated, in consequence of which sometimes diarrhea resulted from increase of peristalsis, but more usually there was firm contraction of the intestine leading to severe constipation; the former was more often seen in animals, the latter in man. The contraction of the bowel, he held, explained the colic. I think, however, that the irregular muscular contraction of the intestinal wall, which is the physical basis of the colic, is due not to a direct action of the lead on the muscular fibre, but to an indirect action through the nervous system.

Ordinary medicinal doses of lead do not usually produce definite effects on the nerves or muscles. It is in chronic plumbism that affections of the nerves and muscles become marked and significant, various forms of neuritis and paralysis almost always appearing. The most common is a paralysis of the extensor muscles of the wrist and fingers, leading to a condition known as "wrist drop," from the peculiar manner in which the hand hangs down when the limb is extended. This occurs more often, or earlier, on the right side than the left—the fingers and wrists are flexed, and the hand pronated, the elbow stands out from the side, and the forearm bends on the arm—wasting of the affected muscles quickly follows, especially of the small muscles of the thumb. A special plastic, or fungoid, form of synovitis in the sheath of the extensor tendons has been described.

Sometimes other muscles are affected —thus, strabismus has been noted from paralysis of the ocular recti, and aphonia from laryngeal palsy. Death has resulted from paralysis of the respiratory muscles; in a case where this was imminent, recovery occurred under atropine, which was presumed to stimulate the respiratory center. Although the paralysis is generally of the forearm type, giving the double drop-wrist, yet it is not infrequently of the upper-arm type (in which the deltoid, biceps and supinator longus are implicated); sometimes it has the characters of an ordinary progressive muscular atrophy (Aran-Duchenne), attacking first the small hand muscles, and in about thirteen per cent of the cases it attacks the legs first (peroneal type). Of the special senses, sight is the most often affected, amblyopia occurring sometimes without the presence of any changes in the fundus, though double papillitis or neuro-retinitis are not unfrequently seen. Oliver has recorded cases of primary papillitis, and Lockhart Gibson has described cases in children where there was much swelling of the disc. In these cases there was no albuminuria, but lead was found in the urine. Impairment of vision often persists, and in some cases ends in absolute blindness. Permanent loss of sight may occur also from a chronic atrophy of the optic nerves independent of papillitis.

It is not uncommon for the hearing to suffer, and common sensibility is sometimes altered. There are occasionally patches of anesthesia, and sometimes hyperesthesia is developed. From experiments on animals Curci concludes that lead specially irritates the vagus, and he thus explains the slowing of the heart action.

During an attack of lead colic the intellect is, as a rule, clear, but in long-continued cases the moral courage and the spirits give way, and sometimes in the course of the illness distinct delirium occurs, generally of the form "delirium of dread," not unlike delirium tremens. The patient is afraid of being alone, especially at night, and has visions of black and creeping things. The encephalopathic, or fulminant, cases may result in death in a few hours. In the cases where recovery occurs, there may persist blindness, or epilepsy, or insanity.

The fits, which are due to the presence of lead in the blood, resemble those of uremia and alcoholism, indeed, are indistinguishable from true epileptic attacks. Other cerebral symptoms, such as headache, delirium and coma, have been recorded; insomnia is usual. A comparison may be drawn between the effects of alcohol and of lead, both upon the nervous system and the kidneys. Of one thousand three hundred and ninety cases of lead poisoning, there was colic in eighty-eight

per cent, paralysis in seven per cent, and encephalopathy in five per cent.

Whether the muscles or nerves are primarily affected, and in the latter case whether the peripheral branches, or the centers are most at fault, has been much debated. Giacomini attributed the colic to direct muscular irritation from deposition of the metal in the abdominal muscles and the diaphragm, pointing out that superficial pressure often gives pain, even over the iliac crests, whilst firm supporting pressure relieves.

Tanquerel maintained that the colic was due to irritation of the great ganglionic centers, though signs of this could only be found in one out of forty *post-mortem* examinations.

Heubel argues that the peripheral intramuscular extremities of nerves are at fault rather than the main trunks. On the other hand, Bernhardt asserts that the real lesion is in the gray matter of the cord, and most modern observations point to the same conclusion, at least in chronic conditions; lead has been found in its substance in some cases, and a granular partly atrophic state of spinal cells has been verified in one instance. Popow finds that lead, like arsenic and mercury, produces a central myelitis of the spinal cord. The affected muscles and corresponding nerve-trunks are much atrophied, so that sometimes scarcely one normal fiber can be found. The view that the nerve centers are the seats of the lesion is supported by the fact that large quantities of lead are found in both cerebrum and cerebellum. In animals choreic movements occur, and even convulsions, without impairment of sensation or consciousness. It would seem that the motor areas of the central nervous system are more affected than the sensory.

Harnack explains the colic by an action on the intestinal ganglia. He holds that the action on the muscles is a primary one, although certain observers have stated it to be secondary to degeneration in the spinal cord. In acute poisoning, before any affection of the cord has had time to affect the muscles, he describes the latter as being easily fatigued so that they can not be tetanized by repeated electric stimulation.

Recent research has shown that it is more than likely that the whole neuron is affected by the lead poison. The peripheral nerves are undoubtedly degenerated, but the fact that the supinator longus escapes in the ordinary wrist-drop indicates an affection of the centers in the cord as well.

Of the cerebral phenomena, to which the term saturnine encephalopathies has been applied, epileptiform convulsions are the most common; they may occur early, and come on suddenly without warning, and are usually accompanied by headache, vertigo and dimness of vision. The convulsions which ensue later are usually associated with an albuminous condition of the urine.

Full medicinal doses of the acetate slightly lower the force and frequency of the pulse. In chronic conditions of lead poisoning the pulse is small, hard and usually slow, and the sallow, bloodless skin has an icteric tint, anemia is marked, and there is more than the normal amount of liquor sanguinis, as well as fewer red corpuscles. Malassez states that these are increased in size. Cardiac murmurs are common in lead workers, and the heart and great vessels have been found smaller than usual after death. Henle considers that the vessels are contracted (during life) by direct irritation of their muscular coat by lead circulating with the blood; certainly vascular tension is much increased in plumbism, as clearly shown by the sphygmograms.

Chronic lead poisoning often leads to abortion, and if this does not occur, the children born are delicate. Of one hundred and twenty-three conceptions amongst lead workers, fifty children only were born alive, and of those but fourteen survived infancy. It would seem that the influence of one parent only affected by lead is enough to produce these results. Amenorrhea and menorrhagia have been traced to working in lead, and pills of diachylon are largely used to procure abortion, especially in factory towns.

The influence exerted by this drug upon the kidney is of great practical importance. Albuminuria is not uncommon in acute plumbism, and is then connected

probably with an altered condition of the blood, but in chronic cases a directly injurious action is exerted on the kidney structure, leading to chronic interstitial nephritis. It is said to be due to the deposition of earthy matter in the looped tubules, causing their blocking, and consequent cirrhosis. Shearman has recorded two remarkable instances of albuminuria in one family, traceable to the use of drinking water impregnated with lead; characteristic palsy was also present. The cases recovered for a time after removing the cause, but later one died of apoplexy, the other of Bright's disease. In a clinical lecture on the subject, Oliver concluded lead to be a "special poison to the renal cells," but all metals, if absorbed, affect the kidneys more or less severely.

During a paroxysm of colic the amount of urine is diminished, and it is passed with difficulty. It is proved also that the excretion of urates, urea and uric acid from the blood in its passage through the kidneys is lessened under the influence of lead, hence a larger than normal amount remains in the blood, and the patient becomes exposed to gouty attacks. Indeed, acute gout may be developed in susceptible subjects by the administration of lead salts, and it is calculated that thirty-three per cent of gouty patients had been exposed in some manner to the action of lead. Pains about the joints and deposits of urates are not uncommon in saturnine cachexia.

Of the different workers in lead, oxide of lead, or "white lead" (carbonate), those who grind it in factories are most liable to suffer, though less so now that the powder is ground with water, but house painters and coach painters, plumbers, pewterers and compositors, makers of certain white glazed cards, hat pressers, bleachers of Brussels lace and glazers of pottery are often affected. Severe symptoms have sometimes arisen from sleeping in a newly painted room, or from breathing the smoke of burning painted wood. Amongst exceptional and little suspected causes of plumbism, are the handling of vulcanized rubber and black horse hair colored by lead sulphide, the use of hair washes, dyes and cosmetics containing lead salts, breathing dust from "American cloth" whitened with lead salts, and in the process of making yellow cord fusees (chromate of lead). The case is recorded of an infant one and three-quarters years of age, who developed lead poisoning from the treatment of a general eczema with diachylon ointment. Poisonous symptoms have followed in an infant after the application of strong lead lotions, or "metallic shields," to the mother's nipples, and in children from yellow confectionery (chromate). Chewing "tea lead" (in which tea is wrapped), using snuff that had been wrapped in similar "foil," the use of soda water from lead syphons (free tartaric acid is said to help in this case), bathing in water impregnated from a leaden pipe, drinking wine from bottles which had been cleansed with shot, have all caused plumbism. Cases of lead poisoning have been recorded in a shoemaker from putting nails in his mouth, in a cigar roller from cutting cigars on a lead plate and putting the knife in his mouth; in a diamond worker who fixed small diamonds in masses of lead before proceeding to cut them; and from the manufacture of artificial flowers.

Two epidemics have occurred—one at Taunton (England), another in France —from flour ground between millstones that had been mended with lead, and even the handling of lead machines, as in ice-cream making, or cameo polishing, or cleaning "beer engines," or brass handles (as engineers do), has induced colic. Cases of lead palsy occurring in children in Australia were traced to the drinking of ginger beer which was found to contain one milligram of lead in twenty-four ounces.

There is reason to think that "dry colic," or enteric neuralgia, of tropical countries is connected with lead. Gubler gives instructive instances of its development from the use of lead cosmetics in creoles. Mialhe and other French physicians speak of lead colic being frequent on shipboard, and connect it with the action of a saline atmosphere on lead. It is especially frequent in Newcastle, "the home of the lead trade."

Excepting in the trades mentioned, the most frequent source of lead poisoning

is the use of drinking water impregnated with the metal or some of its compounds. Bad symptoms have resulted from so small an amount as one-fortieth grain per gallon, and one grain per gallon is a surely dangerous dose. It is to be noted that the freer the water from saline ingredients, the more readily it takes up a soluble carbonate formed on the metal pipe or cistern. The formation and solubility of this are also favored by much organic impurity, free access of oxygen, a little nitric or other acid, or the presence of a second metal (iron as well as lead). Carbonic acid in pure water also favors solubility, although in certain circumstances it may act differently. Lime and other saline constituents will, on the other hand, if present in the water, lessen the liability to contamination by forming insoluble coatings on the metal; otherwise, no doubt, plumbism would be still more common than it is.

Epidemics have occurred at Huddersfield, Bradford, Sheffield and Keighley (England). In several of these the public water supply from moorland was found acid, and the acidity on which the plumbo-solvency of the water depends has been shown to be due to the effect of peat.

There is a great difference in the susceptibility of different individuals to the poisonous action of lead—as may be verified in any large factory—and it is comparable to what has been noticed with arsenical wall papers. One attack of colic predisposes to another, which may follow after a long interval from a comparatively slight cause—thus a man who had suffered as a house painter turned gamekeeper, and got an attack long afterwards from stirring shot in water with his hands; and a house painter, who, on account of wrist-drop, became a college porter, had a relapse a long time after complete recovery, from sitting in a newly painted porter's box. Women, and especially girls, are more susceptible than men. The most susceptible of all are underfed girls who have been living in bad hygienic surroundings before commencing to work with lead.

In chronic cases of lead poisoning an alkaline iodide should be given internally, and sulphur baths should be used containing seven ounces of sulphuret of potassium, or its equivalent. During half an hour of bathing, frictions should be employed, and soap should be freely used afterwards. Electricity should be applied to the affected muscles—Faradism if it causes contraction; if not, the continuous current three or four times weekly for a quarter of an hour, whether it induces contraction or not; in curable cases it will ultimately do so.

Purgatives should be freely given. Castor oil will remove the lead excreted into the intestine. The best results are obtained, however, from magnesium sulphate given with potassium iodide. Under the influence of the latter drug the lead is excreted by the bile and intestinal secretions, and is then immediately removed by the epsom salts, and thus reabsorption of the poison prevented.

Fatty food is said to antagonize the development of plumbism in lead workers, and a long prevalent colic in large large lead works in Birmingham was stopped by the free use of a "treacle-beer" containing sulphuric acid. Washing the hands before eating is important, and washing with petroleum is prophylactic.

Dr. Murrell recommends the following prescription in cases of chronic lead poisoning:

℞ Magnesiæ Sulphatis	2 drachms.
Ferri Sulphatis	3 grains.
Acidi Sulphurici Dilati	15 minims.
Spiritus Chloroformi	15 minims.
Tinctura Belladonni	10 minims.
Tinct. Capsici	2 minims.
Aq. Menth. Pip. ad	1 ounce.

The sulphuric acid converts the lead into an insoluble sulphate which the magnesia salt expels from the intestine. The iron acts as a hematinic, whilst the belladonna relieves the colic. The other ingredients are carminatives.

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A dollar put in the BRIEF is worth many placed elsewhere.

[Written for the MEDICAL BRIEF.]

The Principles of Electro-Therapeutics.

BY A. D. ROCKWELL, A. M., M. D.,

Formerly Professor of Electro-Therapeutics at the New York Post-Graduate Medical School and Hospital; Ex-Electro-Therapeutist to the Woman's Hospital in the State of New York; Neurologist and Electro-Therapeutist to the Flushing Hospital, Fellow of the New York Academy of Medicine; Member of the County Medical Society, New York Neurological Society, Etc. New York City.

A question not without interest to those who give time and study to electricity in medicine, and one, too, that ought to be of interest to the profession at large, is the place that electro-therapy should hold in the nomenclature or ethics of the healing art. No one, I take it, who works on any but the narrowest lines, would care to be considered an electro-therapeutist only, and still less would he relish the designation of electrician so senseless in its application to the physician. Electrotherapeutics can not be considered a specialty in the sense that neurology or ophthalmology are specialties. Like hydrotherapeutics it is simply the application of a single remedy—a remedy to be sure having an enormously wide range, and double-edged and many-sided.

Electricity belongs to every general practitioner, and to every specialist, but more distinctly and properly, perhaps, to the neurologist. It often aids him in diagnosis and prognosis as no other instrument of precision can, and as a palliative in some organic conditions, and as a curative in some of the functional neuroses, it is invaluable. It belongs to the surgeon, for the cautery and electrolysis give him valuable adjunct weapons to his knife.

Gynecology, obstetrics, ophthalmology, laryngology, can find more than occasional uses for its powers, while its well attested influence over nutrition, its power to modify the nameless and numberless phenomena that energize the living tissue, must give it a place in general medicine.

Unfortunately, however, for its general and successful utilization, a far more intimate acquaintance with its physics and physiology, and with the laws which govern the action of its various manifestations on living tissues, is demanded of the average practitioner than he can claim to possess. In the first place he must recognize the fact that electricity is a generic term, and is not for the purposes of therapeutics, a simple single manifestation of force, but susceptible of so many modifications of its units of measurement, that we get various currents, so-called, differing so widely in their effects that these currents may be almost said to differ in kind as well as degree. How many physicians who undertake to utilize electricity in their practice have studied, much less understood Ohm's law? And yet this law is the foundation upon which is built the whole superstructure, and without a knowledge of it no one can be a master in electro-therapeutics, any more than he can be a master in astronomy without understanding gravitation. As regards the principles underlying the therapeutics of electricity. The production of anelectrotonos and catelectrotonos were the conditions formerly believed to be necessary for the excitation, or the relief of sensory symptoms. We know now, however, that while in physiological experiment on the exposed nerve, these conditions are important factors—the principle does not hold to the same extent in therapeutic work. The two principles upon which we must mainly rely, it seems to me, in the use of electricity for diseased conditions are:

1. Its influence over vaso-motor activity.

2. Its action on the nerve units of the body.

Pain must be, as a rule, if not invariably, due to nerve pressure. If structural changes or organic conditions cause the pain, it is well understood that it is either incurable, or will yield only to operative procedure. If it be due to blood pressure, as is evidently the case in the majority of instances, the relief of pain is coincident with the relief of pressure. Electricity is quite capable of exciting the activity of the circulation through congested areas. It induces a sort of circulatory drainage, acting very much on the principle of heat—the difference being that its effects are more far reaching, as evidenced, for example, by the influence

of massive doses over the pain of deep-seated, malignant growths. The second underlying principle, viz.: the action of electricity on the nerve units, or neuron bodies, while more conjectural as to the nature of this action than vaso-motor effects, seems yet to be a necessary theory to account for the very remarkable effects so often obtained through the use of this agent in the various neuroses—in such conditions as neurasthenia, hysteria and hysterical paralysis, and those cases of mental disturbance that have not yet crossed the border line separating them from actual insanity. The neuron concept has not yet grown into an established fact. Indeed, much doubt has been thrown by later histological studies on this theory of the transmission of nerve impulses, but whether these nerve impulses are transmitted from the center towards the periphery through a permanently continuous chain of nerve tissue or through individual nerve entities that are in contact by contiguity rather than by continuity, the fact remains that the nerve wave is frequently interrupted in its course. Sometimes this interruption is permanent, sometimes only temporary. If permanent, the causes are organic or structural, and we get some form of incurable paralysis or insanity. If temporary, we have to deal with what, in our ignorance, we term a functional causation, and the paralysis, or amnesia, or mental disturbance either recovers spontaneously, or is amenable to treatment. If we accept the theory of amœbic movements, by which is meant the power of the neuron under pressure to expand and contract by means of the protoplasmic prolongations by which their connections between neuron and neuron are alternately made and broken, we not only have a convenient, rational theory in explanation of the functional neuroses, but an explanation as well of the curative effects of purely neuro-motor excitations, and of psychical methods of treatment. There is no form of electricity but what has a certain influence in this direction, yet for the purpose of increasing general nutritional activity, exciting metabolic changes, and developing the potential energy of the cell life, it seems to be the general concensus of opinion that we have in these currents of high frequency, and high potential, an energizing principle superior to the other electric modalities. On the neuron the influence of all high frequency currents, and of what is termed vibratory therapeutics, must in the main be mechanical or electro-tonic. Changes are produced in the excitability of the neuron. New connections may develop from out the protoplasmic prolongations, opening up new paths of conduction for the transmission of the nerve waves, the obstruction of which give rise to so many symptoms of disease.

The powerful influence of strong emotional excitation in dissipating certain functional nervous symptoms has long been recognized. It is believed that these purely emotional neuro-motor excitations accomplish these results by overcoming the non-conductibility of the resistant neuron. In the same way it seems rational to believe that when a patient is placed within the field of influence of currents of high frequency, or is subject to such influences as central galvanization, or the static wave current, the resultant effects over sensory, motor, and mental symptoms are due to the power of these electric impulses to so stimulate the cell energy as to open up new paths for the transmission of the nervous current. It is no very difficult matter to say what electricity will not do. It is almost a self-evident proposition to say that it will not cure, or, as a rule, greatly benefit locomotor ataxia, and the various forms of paralysis due to central lesion, or the cirrhotic kidney due to Bright's disease. There are cases of pseudo-ataxia simulating the true form, and cases of hemiplegia due to no serious structural damage, and these are the ones which electricity has seemingly benefited. There is, nevertheless, one very serious form of central paralysis—polymyelitis—in which experience has shown that elec tricity is most efficient, and in a certain sense, curative. Whether it acts by helping to arrest the progress of cell degeneration through direct action upon the cord itself, or reflexly, as Larat asserts, through excitation of the atrophied muscles, is immaterial. Experience has abundantly shown its very positive value

in this disease, both in the adult and the child.

Electricity will not cure, nor in all probability greatly benefit chronic Bright's disease, but who can define the boundary line that separates simple hyperemia, with its albumen and casts, from those structural changes that we term Bright's disease. In those milder indications of renal disease, however, that are often persistent, and lead to grave issues, electricity properly differentiated and applied is of unquestioned value. We believe the rationale of its use consists in arresting inflammatory action and congestive pressure through heightened circulatory drainage and increased filtration; in short, by its influence over vaso-motor activity. By removing the inflammatory products which block up the uriniferous tubules much can be done towards the prevention of more serious and chronic complications, hastening the recovery of those cases which have not yet crossed the border line of incurable organic change.

We believe that electricity in medicine is an important factor for good or evil. We take no issue with those who hold that its importance has in many ways been overestimated, but we do take serious issue with those otherwise intelligent physicians who say, I do not believe in electricity. They might as well say that they do not believe in heat or cold—air or water. Of those who say they have tried electricity and found it altogether wanting, it can only be said that the remedy has not received a fair trial at their hands; in other words, they have failed in persistency or technique. No man's opinion of electricity in medicine is of value without he has persistently and intelligently made use of it with his own hands. It will not do to relegate its use to nurses and untrained assistants. Its use in public hospitals and dispensaries is almost always unsatisfactory, for the obvious reason that even if it is applied correctly the requisite time and attention are not apt to be given to this class of patients. More than any other remedy, perhaps, the administration of electricity demands time and careful attention to minute details.

The difficulty of the beginner in the use of electricity in medicine is that he is apt to have incorrect ideas of its general therapeutic action, as well as of the general law of its application. More than this, he not only fails to differentiate in the choice of the electro modalities, but too often insists on treating the name of the disease rather than the condition of the system, of which the symptoms are the result and expression. As I have said elsewhere, if we would get the best and quickest therapeutic results, our motto should be differentiation. Not only must we strive through theory and practice to adjust electric modalities to pathological conditions, but the personal equation in each case should receive due consideration. Some patients react better to one electric modality, while others suffering from the same apparent pathological condition, and for no reason, react better to another. As in radio-therapy, idiosyncrasy is an important factor in the production of dermatitis, so in electrotherapy, idiosyncrasy also plays its part, and no matter for what form of electricity one may have a preference, he will, if he makes much use of electricity in medicine, frequently have occasion to call in the aid of each.

616 Madison Avenue.

[Written for the MEDICAL BRIEF.]

"Subinvolution of the Abdomina Wall After Childbirth."

BY GEO. H. WASHBURN, M. D.,

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Attention to details is of prime necessity to the physician and surgeon. If we neglect details we miss success. The untiring study of every detail of disease gives the clue for bettering our treatment, as well as our diagnosis. It is the constant attention to small points, as well as the great, without being bound by precedent or habit, or the custom of our fore-

fathers, which is placing America in the lead in modern surgery.

Obstetrics combines intimately both medicine and surgery, and by careful observation and study the process of childbearing has been made both more easy and more safe.

One detail of convalescence has appeared to me to have received less attention than it deserves. Women are examined as to involution of the uterus before they are allowed to get up, but the condition of the abdominal wall receives scant notice. It is just as important to see that the abdominal wall is not left lax and flabby as it is to be sure that the uterus is firm and small. So many cases have come under my observation where a failure to attend to this detail has caused prolonged ill-health, that I think it worth while to call attention to the matter.

In my class-room I have always insisted upon the necessity for such care.

These cases have usually been in women who have had one child. The labor has been rather difficult, the abdominal wall has been not only considerably stretched, but also much scarred by lack of elasticity during the stretching period. They have apparently made a very good convalescence to start with, and have been allowed to get up in between two or three weeks—not too early. As they were up the physician has dismissed them from his mind. At this point, however, the progress has ceased to be so satisfactory. They easily become tired on the slightest exertion. Digestion has been poor, and does not improve much under appropriate treatment. Bowels constipated, as a rule. There has been complaint of general weariness and dragging after being on the feet even a moderate amount.

Physical examination shows a relaxed and flabby condition of the abdominal wall. Abdominal palpation gives no response from the recti muscles. The skin feels rather harsh, without elasticity or life. In a standing position the abdominal wall pouches below, and if the condition has gone on for some time there is a ptosis of all the abdominal organs. This causes an extra weight in the lower abdomen, and this pressure gives some prolapse, or version, of the uterus. The pelvic ligaments are also apt to share the flabby condition of the abdominal wall, and we have a general descent of all the pelvic organs.

The treatment, of course, should be preventive. The condition of the abdominal wall should be carefully observed early in the convalescence. If there is lack of elasticity and tone in muscles and skin, massage should be given with some bland oil. Faradic electricity is also very useful. When the woman is allowed to get up she should wear an abdominal supporter to remove undue strain from the abdominal wall. Corsets should be forbidden, or worn very loose, until tone has been restored to muscles and skin. When the condition has continued for some time without recognition, the treatment should be along the same general lines. It seems wise, however, to put the patient to bed for a week. As the first step, give massage and electricity every day, and general tonic treatment, as iron and strychnine, in some form. Keep the patient out of doors as much as possible, but without taking active exercise. The exercise should be by means of driving; the air can be taken on a piazza, the patient resting in a reclining position. An abdominal bandage should be fitted that will lift up the lower abdominal wall.

Attention should be given to feeding and digestion in order to build up the general system. Where the condition is aggravated, a considerable time is needed to get the abdominal wall into good condition again, but after tone has once been restored there will be no further trouble. It is so much easier, however, to prevent the condition being established, that it is well worth while for every physician to give this matter his attention before he allows the patient to get up.

377 Marlborough St.

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[Written for the MEDICAL BRIEF.]

The Treatment of Aural Polypi.

BY JOHN L. ADAMS, M. D.,

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Polypi may be said to exist in one per cent of the cases of purulent discharge from the middle ear. They may be of slow or exceedingly rapid growth. In some cases a polypus may reach a large size in a few weeks, and in others not be noticeable for two years, or longer.

Any inflammation of the middle ear, of a prolonged character, usually causes necrosis of the ossicles, or some portion of the bony wall. This necrosis causes a continual discharge from the ear, and this in turn is followed by granulation tissue, which commonly develops into what is known as a polypus.

The necrosed bone sets up an irritation which prevents healing, and until it is removed the discharge of pus will continue. The usual method for its removal, if circumstances favor it, is by the Staacke operation. If this operation is not performed, and the discharge of pus continues, a polypus is the usual result.

The polypus, without exception, takes root in some portion of the mucous membrane of the middle ear. If it is of good size, on inspection it will be found to occupy the entire lumen of the canal. If there is any doubt as to diagnosis, it can be made certain by passing a probe into the canal of the ear, and circulating it around the edges of the polypus, which usually freely moves from side to side.

The first step in treatment is to rinse the ear with a solution of bichloride (one to three-thousand), or, better still, have the patient syringe the ear with this solution once every four hours, or three times a day for twenty-four hours preceding the time of operation. The object of this preliminary treatment is to prevent possible infection of the surrounding parts.

A local application of cocaine is advisable, although it does not secure perfect anesthesia.

Probably the best instrument for removing the polypus is Blake's modification of Wilde's snare, because it is bent at an angle, and for this reason it is much easier to direct its movements while placing the wire around the polypus. Having placed the wire in position, the instrument is gently pushed into the middle ear, the wire is placed round the polypus; it is then quickly removed by a sharp pull on the sliding portion of the snare. Although the polypus may be cut at the root, it may remain in the ear, and can be easily withdrawn by means of ear forceps, or by syringing the ear with a bichloride solution.

This treatment generally suffices to remove a polypus of any size. If it so happens that a small root is left in the ear, the patient may be instructed to use the same solution of bichloride (one to three-thousand) every four hours for a day or two, or perhaps two or three days. The root can then be destroyed by placing a bead of chromic acid on a probe, and touching the surface of it carefully. Care should be taken not to touch the external ear, or any portion of the ear except the tissue to be destroyed. After this the external canal should be dried by cotton wound on a probe, and about five drops of alcohol or iodoform in the strength of one to forty dropped into it. This is the classical treatment of polypus, and usually effects a perfect cure.

Recurrence, when it takes place, is usually due to the same cause which sets up the first inflammation, viz., a cold in the head, the entrance of foreign matter through the Eustachian tube, or foreign matter through the external ear, etc. If the polypus should return, the Staacke operation should be performed for the removal of dead bone.

A large polypus may force the pus back into the mastoid by preventing its escape into the outer ear, and unless promptly

removed, mastoiditis, epidural abscess or sinus thrombosis may follow.

If the treatment is successful, however, the polypus does not usually return.

38 East Fifty-First Street.

[Written for the MEDICAL BRIEF.]

Inguinal Hernia.

BY T. C. WITHERSPOON, M. D.,

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There are few problems which confront the general practitioner that are more interesting than that of hernia. He whose function it is to pass first judgment upon nearly all of these cases, should have a very thorough understanding of the subject, and be conversant not only with the text book, but the experience of those men whose special field in medicine demands from them a cure of the condition. Being interested, I have taken occasion to look up that which is written upon the subject, and find a decided tendency on the part of the writers of books to endeavor to mention everything relative to hernia and its treatment, not insisting upon any special procedure which can be universally relied upon, or any fundamental principle which, if followed, will give the best basis for advice or treatment. The truss, in all of its varied forms, injections of sclerosing and irritating chemicals, and the operations, including every one proposed from mere ligation of the sac and simple closure to the complicated shifting of tissues and imbrication of layers, are given a place. It is not to be wondered at that confusion is the result, and that advice is varied, and too often bad. As a consequence, the truss has a place it should never have been given, and the manufacturers of these instruments flourish in number where one should have a hard time maintaining a business.

Another result is the advertising, "No cure no pay" man, who can afford to pay the rents of conspicuous downtown corner offices, while the competent practitioner has to be satisfied with the less pretentious back rooms. In a short paper of this kind only the salient features of the subject can be touched upon. I hope, however, to make clear certain fundamental principles in treatment of hernia of the inguinal region which point clearly to the necessary course to pursue.

The anatomic conditions which are the basis of hernial formation in the inguinal region may be classed under two heads. First, the persistence of that fetal canal formed by the descent of the testicle into the scrotum from the belly cavity, and second, those changes which occur with a weakening wall, the result of age or systemic condition. This, of course, does not include the hernias that result from unnatural defects in the wall which are observed in conjunction with other deformities or defects, but includes that large army of individuals in whom hernia develops, and who are otherwise normal.

Berger's study of the statistics of hernia based upon ten thousand cases of hernia, comparing those of each age with the total Parisian population of a corresponding age, gives the following result:

In every one thousand cases in first year of life there were 19.6 cases of hernia; from first to fourth year, 4.2 cases; from fifth to ninth year, 1.89 cases; from tenth to fourteenth year, 1.35 cases; from fifteenth to nineteenth year, 1.14 cases; from twentieth to twenty-fourth year, .88 cases.

From this period the ratio steadily rose until the percentage from the fifty-fifth to the fifty-ninth year was 9.52; from the sixtieth to the sixty-fourth, it was 14.03; from the sixty-fifth to the sixty-ninth, it was 20.73, and from the seventieth to the seventy-fourth, it was 24.20. After this period the per cent grew smaller again.

Upon observing this table the inference is that the persistent funicular process of peritoneum through the inguinal canal causes the appearance of the early-life hernias. This grows rapidly less after the first year until at twenty-four the number is smallest. Unquestionably this is due to a tendency to closure of this peritoneal lined canal during the early years of life. The increase during the later years, until in the seventies, the proportion of people suffering from hernias is again large points to the formation of hernia through weakening walls,

or better, as I shall try to indicate, through shifting of the relationship of structures which form the wall at the point of hernia. The above table, it must be understood, does not refer to inguinal hernias alone, but includes all varieties. The large majority, however, were of the inguinal type, and it serves at least to illustrate the relative frequency of inguinal hernia at the various ages.

Before proceeding further, there are some salient features in the anatomy of the inguinal region to be considered:

The external oblique, the internal oblique and the transversalis muscles have their aponeuroses pass in front of the lower quarter of the rectus abdomenis, and find insertion into the pubis between the crest and the lower portion of its anterior surface. These muscles are inserted into the ileo-pectineal line in the order given, running backward and outward an inch to an inch and a half from the spine of the pubes. The external oblique is inserted into this line under the name of Poupart's ligament and Gimbernat's ligament. Poupart's ligament is that part of the apoheurosis which is inserted into the spine of the pubes, and Gimbernat's ligament is formed by the lowermost fibers which turn under and inward, and find insertion into the ileo-pectineal line. The latter was named for the Spanish surgeon who pointed out its important relation to femoral hernia.

Poupart's ligament is held firmly in its relationship with the upper portion of the thigh by the fascia lata, which is apparently continuous with it, only separable by cutting.

The inter-columnar fibers are small reflected fibers of the aponeurosis, which take their origin from the anterior superior spine of the ilium.

The fibers of the internal oblique do not enter into the formation of the so-called conjoined tendon, but passing across the upper end of the inguinal canal are inserted into the pubes just within the insertion of the external oblique. The continuation of this muscle downward over the cord is by those layers of fascia which lie external and immediately internal to it, and which include the cremaster muscle bundles. The cremaster muscle in these layers of fascia together constitute the cremasteric fascia, and lie wholly external to the inguinal canal.

The lower fibers of the internal oblique take their origin from the iliac fascia, and are closely adherent to the outer half of Poupart's ligament. There is some variance noted as to the extent of attachment to Poupart's ligament, but careful analysis of dissected cases will show this variance is not as consequential as has been pointed out by some writers.

The insertion of the cremasteric fascia into the ileo-pectineal line is just internal to that of Gimbernat's ligament. From what is here given it becomes apparent that the inguinal canal passes through the internal oblique just under the opening in the external oblique, or external abdominal ring, and pushes down the few bundles of cremasteric muscle fibers from its lower edge.

The transversalis takes its origin from the iliac fascia under the outer third of the Poupart's ligament, and is with the internal oblique attached to the overlying Poupart's ligament. It is interesting to note the direction of these lower fibers of the transversalis. I find that, as a rule, the lowest pass inward above the internal opening of the inguinal canal, then curving somewhat downward, are inserted into the ileo-pectineal line under the name of the conjoined tendon. At other times the fibers pass directly across to the linea alba, and are not inserted into the ileo-pectineal line at all. In these cases the conjoined tendon is composed of strong radiating fibers, which are usually described as the triangular ligament of the abdomen.

Some important feature of the anatomy of the fascia transversalis should also be mentioned.

This fascia is very closely attached to the conjoined tendon, lying just internal to it. It covers in the open space left by the muscles arching over the spermatic cord, therefore forms a part of the posterior or internal wall of the inguinal canal. The inguinal canal penetrating this fascia, and passing at a very acute angle through the abdominal wall in an inward and downward direction, causes the transversalis fascia which is reflected upon the cord to be sharply turned upon itself at the inner side of the internal

abdominal ring, and gives to the ring a sharply marked edge. The portion of the transversalis fascia external to the inguinal opening is joined below with the iliac fascia from the lower edge of origin of the internal oblique outward along the whole extent of the attachment of the iliacus internus. At the outer border of the internal abdominal opening it is continued into the inguinal canal upon the outer surface of the cord.

The outer edge of the conjoined tendon lies just in front of the artery, being protected from pressure to a certain extent through the resistance offered by the artery. The artery passing upward and inward just internal to the internal abdominal ring, also protects the falciform process of the transversalis fascia which borders its inner edge.

With these anatomic points in mind, it becomes no difficult matter to explain the greater per cent of hernias with advancing years.

The inguinal canal in the normal is a valve-like passageway. When abdominal pressure is increased the posterior wall of the canal is driven against the anterior, and the canal shuts closely. Injury with relaxation of the wall, the advance of years, or occupation which is too heavy for the individual, causes a distension of the belly wall, the inguinal area is bowed out, and the fascia has to stretch. This stretching occurs everywhere except at the internal abdominal opening, which simply is opened the wider. Were this all the valve would still be efficient in preventing hernia. The artery, however, preventing a complete prolapse of the inner edge against the outer wall of the canal causes the internal abdominal ring to stand open, and as a consequence the intestine or omentum finds an easy route through the canal, meeting no obstruction at any point. Undoubtedly this is the explanation of that large majority of hernias which come with advancing years.

Another potent cause for hernia I have seen illustrated very nicely in dissecting. At times the conjoined tendon remains somewhat too tense under repeated strains, and does not meet the outer wall of the inguinal canal, which yields with the pressure, and as a consequence there is left a space between, into which a portion of bowel or omentum slips from time to time under pressure, and gradually there is developed a hernia. The relationship of the artery to the edge of the conjoined tendon will in these cases determine whether the hernia will be a direct or indirect. If the artery is far enough to the outer side of the tendon to let the bowel pouch into the inter-space between it and the tendon, the hernia becomes a direct one, gradually carrying the fibers of the conjoined tendon with it forward through the opening. The close attachment of the transversalis fascia to the conjoined tendon causes it to drag the tendon into the hernial wall, fiber by fiber. The fixity of the fascia at the inner abdominal ring, and the artery being to the outer side, limits the tissue out of which a covering for hernia may be formed, and as a result these hernias are small and stick directly out of the external abdominal ring. In the case of the oblique the only tissue which has to stretch greatly is the peritoneum. The hernia finds a way through the canal between the layers which make the wall of the sac. Its course is, therefore, into the scrotum with the cord. Its size may be large. The treatment of all hernias must be surgical. The only exception to this is that large number found in the first five years which may disappear by normal reparative process.

After puberty the occurrence of hernia should be dealt with surgically. Injection methods are to be condemned in the fullest. They are the harmful, often dangerous procedures, which can in no way cure that class of cases which come with relaxing walls, and are too uncertain to be applied in cases where the cause of hernia is an unclosed canal of congenital formation.

The operation to be used must be as effective in re-establishing a valve as possible. Evidently no one procedure will answer equally well in all cases. Conditions will necessarily modify the procedure. On the whole the two things to be accomplished are to allow the inner wall to freely meet the outer, and secondly, to so strengthen the outer that it will not give too greatly under pressure, and thereby maintain the valve-like action,

closing the canal. It is always well to divide the transversalis fascia directly upward from the internal opening to a point just beyond the transversalis muscle. This procedure does away with the directing influence of the opening in the transversalis fascia, and allows it to more readily close against the anterior wall of the canal under pressure. An additional precaution to be used in connection with this is to turn the cremasteric fascia and muscle inward around the cord, and suture it to the deep crural arch. This avoids the possibility of pressure opening up the canal at its inner end. The anterior wall is made tense by simply bringing the lower edge of the internal oblique down to Poupart's ligament, and over-lapping the two flaps of the external oblique aponeurosis. Or this same thing is done with less anatomic correctness, but with strength and good results, by doing as Andrews has proposed, bringing the edge of the internal oblique, and the superior pillow of the external oblique down to the Poupart's ligament, and under the cord, while the outer pillow of the external oblique aponeurosis is carried over the cord and stitched above.

In those long-standing cases of large dimensions the same law applies, but the procedure is modified to suit the tissues which can be used.

4318 Olive Street.

[Written for the MEDICAL BRIEF.]

Liquid Air and Its Therapeutical Possibilities.

BY SAMUEL G. TRACY, B. SC., M. D.,

Formerly Physician to Vanderbilt Clinic; Post-Graduate Hospital; New York Skin and Cancer Hospital and the Bloomingdale Clinic; Bellevue Hospital O. D. P. New York City.

History.—The liquefaction of gases has occupied the attention of scientists for over a century. The first gas liquefied was chlorine. This was accomplished under pressure, in 1806, by Northman. In 1823 Faraday repeated the same experiment, and also succeeded in liquefying ammonia and nitrous oxide. A period of fifty years now elapses before further progress is made in the liquefaction of gases. In 1877 Raoul Pictet submerged oxygen gas under great pressure, combined with great cold, and the result was a small quantity of cold, white mist. Fifteen years later Olzewski liquefied nitrogen, and the next year, 1883, Wroblewski produced oxygen in a complete liquid state. Two years later he succeeded in making liquid air, but only in small quantities. In 1892, Prof. James Dewar repeated the experiments of his predecessors, but his first liquefaction of air was a mushy ice, the first ounce of which cost $3,000. Later, however, he produced it at $500 a pint. Now it is produced by the Tripler system in this city, and sold at $10 a gallon.

Liquid air presents many features of an unusual character, and it is attracting the attention of scientists generally, and of medical men in particular. Its value in the treatment of nævi, epithelioma, lupus erythematosis, etc., has been demonstrated to the satisfaction of those who have used it. Before discussing its use in medicine and surgery, and the showing of clinical cases who have been treated by liquid air, I wish to say something of its manufacture, its physical and physiological properties.

Manufacture.—When a gas is compressed it gives out heat, and when the pressure is removed the gas expands, and thus produces cold. The method first used by Dewar was to compress nitrous oxide gas and ethylene gas into a specially constructed apparatus. This method was found to be dangerous, and expensive. However, a more simple and inexpensive method of Tripler is described by Dr. A. C. White, of this city, as follows: "The natural air is compressed to the extent of two thousand to two thousand four hundred pounds to the square inch. This is allowed to escape and pass through certain small openings, each protected by its own valve, into tubes which coil upon themselves, over and over again, thus cooling off the air more and more as it enters the liquid. The cooled compressed air is now allowed to escape into a vacuum, and a sudden and extreme expansion results. By this method, the two necessary conditions are obtained to produce liquid air, namely, critical temperature and critical pressure. The liquid air may now be drawn from the liquefier

just as water is from a faucet, and its appearance is like that drawn from the hot water faucet, boiling and steaming. It is reasonable for it to boil, for it is 400° F. colder than its surroundings. The temperature of liquid air is 312° F. below zero, and the temperature of the room about 70° F. This makes the receptacle about 400° F. hotter than the liquid air, and, consequently, the liquid boils, thus entering into its original gaseous condition—the air we breathe.

As a laboratory experiment, ordinary air may be liquefied in very small quantity by placing dry sulphurous dioxide into a tube surrounded by ice and salt. In a comparatively short time some of it will condense into a colorless liquid. But to make on a large scale, expensive machinery, tubes, pumps, compressors and electric motors are necessary. In order to appreciate how air is liquefied, it is necessary to remember that nearly all gases may be condensed into liquids, under the action of pressure and cold. For example, when sulphurous oxide gas is pressed by a piston into a cylinder, we reduce the volume of mass of the gas, the tension increases up to a certain point, which is called maximum tension, and here the mass begins to liquefy. The maximum tension varies according to the temperature, and the temperature at which the gas liquefies is called the "critical temperature," and when liquefaction takes place at the maximum tension at a given temperature it is called the "critical pressure." Thus the critical pressure, and critical temperature must be attained before the air is liquefied. Now, as the air is made up approximately of twenty-two parts of oxygen and seventy-eight parts of nitrogen, and both of these gases have different critical pressures and temperatures, it is necessary to obtain 220° F. below zero before these mixed gases will liquefy, and only then when the critical pressure is applied. Upon the boiling point of liquid air, and difference in the boiling point of its two ingredients, oxygen and nitrogen, Dr. White says, undoubtedly depends the usefulness of this product in medicine and surgery. "The boiling point of liquid nitrogen is 317° F. below zero, and the boiling point of liquid oxygen is 295° F. below zero; and the boiling point of liquid air is 312° F. below zero. Therefore, the liquid nitrogen must boil away, and evaporate first, leaving pure liquid oxygen. When the liquid oxygen evaporates, if it is caught in a receptacle, it can be used as the purest kind of oxygen for inhalation purposes. Later I will illustrate by an experiment, the different boiling points of the two gases, showing that when the liquid oxygen is left, it is highly inflammable, and when lit produces great heat. Even when it became possible to make liquid air at a comparatively inexpensive rate, its usefulness would have been limited, and in fact, of no avail in medicine and surgery except for the invention of a bulb by Dewar. This bulb is known as Dewar's bulb, and is used to hold this extraordinary product.

This bulb is a glass vessel, with two walls. The space between is exhausted to high vacuum. When liquid air is contained in one of these bulbs it evaporates at one-fifth the rate it does in an ordinary glass receptacle. Later Dewar found that when the inner and outer wall were coated with a bright deposit of silver, that the evaporation was only one-sixth that of an ordinary vessel. Even with these Dewar bulbs, the proposition to sell to physicians does not seem attractive to the manufacturer, because of evaporation, and because the bulbs are easily broken and cost from $3.75 to $12 apiece.

When alcohol is frozen by liquified air at 212° F. below zero, it is likely to become explosive. Owing to the fact that certain disasters and injuries have taken place while performing this experiment, both the lay and medical public have conceived the idea that liquid air is explosive. This is an error; it is no more explosive or dangerous than steam, and like steam, if it is confined, it will explode and find a way of escape. Hence, no corks can be used in the Dewar bulbs.

As I will show you later, a lighted taper applied to liquid air will not make it explode, and even if an electric current is passed through it no evil effects result.

Liquid air is a transparent, colorless fluid, and looks like boiling hot water, and its weight and specific gravity are about the same as water. However, liquid

air is perfectly dry; no moisture could exist because it would immediately become frozen, and become more dense than ice.

When liquid air is applied to the skin and tissues of the body, the parts are immediately frozen. The solidity of the tissues depends on the amount of liquid air used, and the length of exposure. The result of this application is, first, anemia of the part, followed by a reddish reaction or slight inflammation. Then, if the freezing has been severe, there occurs a bulla, involving a smaller or larger area, depending upon the length of application. Dr. White, who is a pioneer in the application of liquid air in medicine, says that it is not only a local anesthetic, but as much or as little anesthesia can be produced with it in a few seconds' time. The anesthesia lasts longer, and is followed by less slough than any other freezing mixture. There is slight pain attending its application as an anesthetic. After the degree of anesthesia has been obtained, a minute or more should elapse, as the tissue may be too hard for satisfactory operative procedure. In treating an abscess or carbuncle, spray the part with liquid air, then incise and empty the contents, spraying the cavity with liquid air. The freezing of the inner walls promotes sloughs, and makes curetting unnecessary.

For some months I have been using liquid air at the New York Skin and Cancer Hospital, in the service of Dr. L. Duncan Bulkley, the liquid air being supplied gratuitously by Dr. A. C. White, of the New York Liquid Air Institute. Probably the most spectacular results have been obtained in nævi cervernous, and impigmented.

The liquid air is applied on a swab, a flat wooden applicator about eight or ten inches long, on the end of which is wound some absorbent cotton. This applicator is dipped into the liquid air. First shake off the excess of this extremely cold fluid, then apply with firm pressure to the area to be affected. The application should last from twenty to sixty seconds, depending on the tissues to be affected. In many cases it is well not to treat more than a square inch of surface at one application. These treatments may be repeated from twice a week to twice in two weeks, depending upon the reaction which has taken place. The abbreviated history of the following cases illustrate the value of liquid air in the successful treatment of nævi.

Case 15.—R. N., age six. Diagnosis, nævus pilosus pigment, situated below the right eye, about an inch long and three-quarters of an inch wide. After the first treatment, the part first became anemic, then congested, and swollen to several times its natural size. The swelling subsided in a day or two, and was followed by a thick crust. After the first two applications of the liquid air, the rat-colored mole became several shades lighter, but the hairs were unaffected. However, after five applications the skin covering this area almost resumed its normal color, and now, after ten applications, about a week apart, the hairy mole is practically removed. To show the results obtained in epithelioma, I will report the following cases:

Case 22.—A. N., age forty. Epithelioma of the right temple of one year's duration. The growth extended over an area of three-quarters of an inch in diameter. After the first application, which was applied to the whole surface for a period of about fifty seconds, there was considerable edema around the lesion, extending to the eyelids. This subsided in a day or two, and after six treatments the growth entirely disappeared.

Case 26.—C. F., age fifty-five. Epithelioma of the outer canthus of the eye and side of the face about an inch in diameter. This patient had two treatments a week for two months. The reaction took place in the usual way, and the growth disappeared.

Case 30.—A. N., age fifty, female. Epithelioma of the edges of nostril and wing of nose; had been treated by various methods, including radium, but without result. Liquid air was applied weekly about thirty to forty seconds at each application. After eight applications there was a complete disappearance of the growth.

In lupus erythematosis, where the area has not been too large, liquid air has proved a more satisfactory and successful treatment than any other remedial agent.

At the Vanderbilt Clinic, patients who were cured of lupus erythematosis by liquid air have returned after a period of four years. Upon examination a clean, and not prominent scar, tissue was seen over the site of the former diseased area. The following case illustrates the value of liquid air in lupus erythematosis:

Case 32.—Female, age forty-five, has had erythematous lupus of the nose for four years. The growth began as a sort of pimple, then a blotch on one side of nose. The tissues became red and scaly, and finally covered the whole nose. The first application of liquid air caused but little pain, and was applied for fifty seconds over an area about half an inch wide, and one inch long. After the part thawed out, it became much congested. This was followed by a bulla, and considerable edema in the adjacent tissues. After twelve treatments, covering a period of two and a half-months, the patient was entirely cured, leaving but little scar; that is, the skin on the nose was a little whiter than that on the surrounding parts. This patient had also a few small spots of similar character in front of each ear. These were cured in four applications.

As a resumé of the uses of liquid air, we can say that:

First—It acts as a local anesthetic.

Second—It reduces inflammation when cold is indicated.

Third—Stronger, more frequent applications produce stimulation and inflammation of the parts, producing a slough, by causing an obliterating endarteritis, and the destruction of nerve supply.

Fourth—Liquid air has a selective action for diseased tissue on account of its low vitality.

From the physical and physiological action of this new and remarkable therapeutic agent, it certainly appears to be worth while to make use of it, in such conditions as lupus erythematosis, superficial epithelioma, some cases of scirrhus cancer of the breast, indolent ulcers, abscesses, and particularly in the various forms of nævi.

240 W. 102d Street.

Enclosed find one dollar for the BRIEF. It is all right.—O. H. CRANE, M. D., Ainsworth, Neb.

[Written for the MEDICAL BRIEF.]

The Early Diagnosis of Pulmonary Tuberculosis.

BY EDWARD O. OTIS, A. B., M. D.,

Professor of Pulmonary Diseases and Climatology in Tuft's Medical College, Boston, Mass.

Boston, Mass.

The general dissemination of knowledge regarding the origin, prevention and curability of pulmonary tuberculosis is prompting the individual, who suspects or fears he may be a victim of the disease, to consult his physician at an earlier period than was formerly the case. The physician must, therefore, be prepared to make an early diagnosis. The day has gone by when the vague statement of a "bronchial trouble" will be received as satisfactory by the patient, and it ought not to satisfy the physician.

"Have I, or have I not, consumption?" is what the patient wants to know, and what he ought to know.

We are all familiar with the symptoms which are suspicious: A slight loss of weight and strength; a little breathlessness on exertion; a falling off of the appetite; digestive disturbance; a sensation of being below one's usual health and activity; a slight cough which persists; and possibly a little expectoration, especially in the morning.

If now the temperature, when taken for several days in succession forenoon and afternoon, or better, every four hours, shows a constant afternoon rise of a degree or even less, and the pulse is considerably higher than normal, there is a strong presumption that incipient tuberculosis is present.

At this early stage the physical signs, if any, are few, and one must make a very painstaking examination to elicit them, and they must—taken collectively—be carefully weighed. If dullness or diminution of resonance is present, it is most likely to be met with above or just below the clavicle, or in the supra-spinous region behind—the area of resonance above the clavicle may also be diminished. The dullness is often so slight that one must be exceedingly skillful in his examination to detect it.

Of more importance, perhaps, is a study of the respiration, for here we may find

the only abnormal signs. The respiratory murmur, as a whole, may be diminished, and the inspiratory murmur roughened, harsh and with a slightly higher pitch, while the expiratory sound is prolonged somewhat, and "rude," or a little louder than normal. In studying the respiration I have found it helpful to concentrate my attention upon each part of the respiratory murmur separately; think only of the inspiration, then only of the expiration. In this early stage râles may not be, probably are not present; or only a few clicks are elicited upon cough or very deep inspiration. At one examination they may be present, and at another not. The voice sounds, or whispered voice, will probably not be abnormal; the vocal fremitus may be increased.

After the physical examination has been thus carefully performed, and the results summed up, and considered in connection with the symptoms, the diagnosis can often, though not by any means always, be arrived at with a fair degree of probability. Not infrequently, however, we are obliged to tell the patient that it is impossible to make a definite diagnosis, and he must come again for another examination. In the meantime, however, there will generally be enough evidence to warrant us either in allowing the patient to continue his usual habits of life, or in immediately putting him upon an anti-tuberculous treatment: Open air, avoidance of over exertion, increased food supply, and more or less rest, both mental and physical. It is safer to make the mistake of a positive diagnosis, and instituting the appropriate treatment, rather than run the risk of losing precious time in waiting for sufficient evidence of a perfectly clear diagnosis.

If there is expectoration, it is, of course, to be examined for the tubercle bacilli, but at this early stage the examination of the sputum is more often negative than positive. There are other resources that may render the diagnosis clear when the usual means fail; these are the tuberculin test, and the X-ray examination. The latter will not generally be at the command of the general practitioner; it is an expensive apparatus, and requires much time and experience to enable one to use it with precision and satisfactory results; but the tuberculin test, on the other hand, can be used by anyone. In over one hundred and fifty trials the writer has met with no harm resulting from its use. A one per cent solution is made with diluted water, and a little carbolic acid, and a drop and a half of this solution is about a milligramme of the original solution, or of Koch's tuberculin one-tenth of a c.c. of the one per cent solution equals one milligramme of the original solution. For the first trial two or three milligrammes can be injected, and if this produces no reaction, after waiting several days, the test can be repeated, using from five to seven milligrammes, or even ten.

A reaction consists in a rise of temperature of from one to four or five degrees within from eight to twenty-four hours after the injection, accompanied by nausea, anorexia, sweating, pain in the head, back and limbs, weakness, and a general feeling of malaise. The symptoms are very much like those experienced in an attack of grippe.

If this reaction occurs it is pretty sure proof that tuberculosis is present somewhere in the individual, and if the other symptoms point to the lungs there is hardly a doubt that these organs are the seat of the disease. On the other hand, although the symptoms and physical examination may point to pulmonary tuberculosis, if after two fair trials the tuberculin test fails one may feel reasonably sure that the disease does not exist. In conclusion, let it be remembered that debility, with slight fever, not otherwise explicable, or hemoptysis, with no other signs, are very suggestive of pulmonary tuberculosis. It is the writer's conviction, founded on experience, that hemoptysis is to be considered a sign of pulmonary tuberculosis unless it can be clearly proved that the hemorrhage comes from some other source.

381 Beacon Street.

I enclose one dollar for the MEDICAL BRIEF, which has given me more satisfaction than any medical journal I have ever taken.—E. W. HUNTER, M. D., Chicago, Ill.

[Written for the MEDICAL BRIEF.]

Rectal Fistula Promptly, Completely and Permanently Cured Without Operation.

BY A. ROSE, M. D.,

Adjunct Professor of Medicine, New York Post-Graduate Medical School and Hospital; Fellow of the Academy of Medicine; Member of the New York County Medical Society; Member of the American Medical Association; Member of the German Medical Society; Member of the County Medical Association; Member of the Eastern Medical Society; Member of the Medical Association of Greater New York; Vice-President of the East Side Physicians' Association; Member of the American Gastro-Enterological Society. New York City.

It is about two years ago that I published my first case of successful treatment of rectal fistula by means of carbonic acid gas application. The case was the following:

J. A., thirty-four years of age, married, father of three children. Family history good. General condition fair. Active, industrious man. Came to my office December 29, 1902, to be treated for fistula in ano. Had been suffering from constipation as long as he could remember. When twenty-two years of age he became afflicted with hemorrhoids, and these have given him trouble ever since. When the piles protruded he used to reduce them by means of a damp, hot cloth.

In June, 1902, he noticed a discharge in the anal region. Before this discharge was noticed, and ever since, defecation was exceedingly painful, and there was always considerable straining. A bearing down pain would sometimes last for from six to seven hours, no matter what position he assumed. There was also experienced a peculiar trouble on urinating. As soon as the desire to urinate made itself felt, the patient had to seek quickly a place of security, because with the desire to urinate ended all control over the sphincter vesicæ.

I found a fistulous opening posteriorly, and within an inch from the anal margin near the median line, from which there was some discharge.

The patient was so nervous that he dreaded examination by means of the probe. Such examination had been made on him before, and operation had been advised, but the patient had refused to consent.

Instead of introducing the probe, in order to convince myself if I had to deal with a complete rectal fistula, I passed a current of carbonic acid gas through the external opening of the fistula. There was no other pain but that caused by the insertion of the nozzle of a common dropper which I had attached to the rubber tube conducting the gas. The application of the gas instead of giving pain as the probe would have done, gave rather a pleasant sensation. The gas passed through the sinus into the rectum, filling the bowel up to its full capacity, and causing thereby the agreeable sensation of warmth that is noticed when the gas is introduced directly into the rectum.

When the patient presented himself again, on December 31, 1902, he spoke in most enthusiastic terms of the relief experienced. He felt like a new man. There was no discharge; the parts around the fistulous opening were, indeed, perfectly dry, which they had never been since June. The bowels had moved freely, and there had been no pain on defecation. From that time on to the present day there has never been any abnormal condition on micturition.

January 1, 1903, gas applied. There had been no pain or straining on defecation.

January 2d to January 10th. Daily application of gas.

After the third application of gas into the sinus, no more gas entered the rectum; the fistula had closed.

On January 12, 1903, the fistula was completely and entirely closed. After this date, at intervals, which became more and more prolonged, a minute superficial collection of pus at the slightly re-opened external orifice of the fistula would appear, and I applied the gas to this little opening for about half a minute. I saw the patient accidentally during the month of November, 1904. He is cured of fistula, the piles have given him no more trouble, and there has never been any more trouble with the prostate.

My second case was that of a tuberculous fistula, but here the carbonic acid gas did not have a curative effect. The

same negative results I had with complicated fistulas with multiple sinuses, and numerous openings through the skin, mucous membrane, or both, where the sinuses extended for a considerable distance beneath the mucous membrane, partially or completely around the bowel, or to distant organs as it occurs most frequently in syphilitic or tuberculous subjects.

Only in cases of simple complete fistula with two openings, one upon the surface of the body in the neighborhood of the anus, and the other in the rectum, that is, the most common form of rectal fistula, have I succeeded.

The minute details of the first case as I proceeded with it from day to day are given in a paper published in the New York *Medical Journal*, of January 31, 1903. Since these details are of great practical interest, I wish to refer to this paper.

The last case I treated successfully is the following: A. H., fifty-nine years of age; tailor. Father of a large family, came to my office October 16, 1904. Complete rectal fistula, five centimeters to the right from anus, discharging for one year pus and serum, and caused much pain. The probe entered the rectum in straight direction. Around the external orifice of the fistula the tissues are very much indurated, almost callous. Carbonic acid gas introduced into the sinus entered the rectum. Patient lives at great distance from my office, and came only in intervals of three days to have the gas applied.

After the third application no more gas entered the rectum. When he came the fourth time, the tissues around the external orifice had lost their induration almost completely, and the sinus was so shallow that hardly any gas could be introduced. Having been at my office six times, I dismissed him, perfectly cured from his trouble, and when I saw him last, during the month of December, I learned that the cure has been a permanent one.

As I have demonstrated, as long as twenty-two years ago, carbonic acid gas applied to inflamed mucous surfaces of the rectum, vagina, or nose, is an ideal remedy, and all my experience during the two decades since passed has confirmed my observations more and more. The local effect of the carbonic acid gas on ulcerated surfaces is two-fold. By its anesthetic action it relieves pain and tenesmus, and by its stimulant action on the circulation it is healing.

The only drawback which seems to be in the way of this treatment becoming favored by the great specialists on rectal diseases is that it is too simple, too rational, and its explanation too clear.

All that is required is a simple apparatus, a glass bottle with a wide neck and a rubber stopper perforated so as to admit a tube, with a nozzle. The carbonic acid gas is generated by means of a solution of bicarbonate of soda and crystallized tartaric or citric acid.

It may be of interest to those who are not familiar with the history of the treatment of rectal fistula to read the following little historical sketch:

Hippocrates taught to treat fistula in ano by means of ligature. Galenos and his pupils were opposed to this method, and substituted extirpation. The surgeons of the seventeenth century considered the cure of a fistula a very difficult task, because they were of the opinion that such a cure could only be accomplished when all pathological, that is, all indurated, tissue would be completely destroyed. The operation had become a very barbarous one, consisting in extirpation of the fistula, and all the callosities of the rectal wall in its neighborhood, by means of the actual cautery or some chemical caustics. The consequence was, the patient thus operated on who survived the operation, who did not die in consequence of hemorrhage or pyemia, were either not cured or were left with incontinentia alvi, or anal stricture. They were in worse condition than before the operation. The after treat-

ment was as complicated as the operation itself.

For this reason the operation of rectal fistula was much threatened, and the physicians took all possible pains to cure fistula by other means—ointments, baths, and internal remedies, but, as a rule, without success.

This condition of things explains the fear of Louis XIV, who in the year 1686 was suffering from rectal fistula, and consented to the operation only after all other possible remedies had been tried in vain on many of his subjects suffering from the same evil. He was operated by his first surgeon, Felix, who invented a new knife, and which was afterward called the royal knife. The operation, performed November 21, 1687, was a success.

Dionis, who has reported all details of the case, tells us that afterward many people, not only of the royal court, imagined themselves suffering from the same affliction as their king, in order to have the honor of being cut with a knife which bore the royal name.

Only after Pott, in 1765, had taught that the callosities need not be destroyed, and that a simple incision was sufficient to heal the difficulty, did the operation lose its danger and its horrors. Still, Syme, in the year 1854, complains that there existed yet surgeons in England who could not be persuaded to abandon the old method, and that he had seen several cases of frightful destruction, which had been caused by rural surgeons operating for simple rectal fistula.

Again and again have means been tried to cure fistula without operation. None have been successful, but this fact should not deter us from paying attention to the carbonic acid application, which will, according to my observations, effect a radical cure in such cases as mentioned in this paper, which otherwise would have to be operated.

Enclosed find three dollars for the MEDICAL BRIEF for the next four years, from January, 1905. The good old BRIEF—I can not think of parting with it. Count me as a life subscriber. It is growing better every year.—R. R. LASATER, M. D., Lawson, Tex.

[Written for the MEDICAL BRIEF.]

Warfare on Tuberculosis—Fat the Germ Destroyer and Equalizer of the Body, with Especial Reference to Oils and Fats in the Prevention and Cure of Tuberculosis.

BY THOS. BASSETT KEYES, M. D.,

Professor of Tuberculosis, Jenner Medical College; Chairman of the First Organization Committee of the American Congress of Tuberculosis; One of the Vice-Presidents of the International Congress of Tuberculosis, St. Louis, 1904; Editor of "The Tubercle" (a journal on Tuberculosis) from 1897 to 1902. Etc. Chicago, Ill.

[Paper No. 2.]

Fats and Oils as Germ Destroyers and Equalizers.—In the fat of the body we have one of its own greatest antiseptics, its greatest disease germ destroyer, and a substance which in the body fermentations is an equalizer. The common disease germs will not grow in oil; the substance for their growth and propagation is not present, for in the body they increase at the expense of its nitrogenous parts.

Oil Destroys Yeast Germs.—The volatile oils such as the oils of cloves, cinnamon, creosote, and of plants, have long been known and used as antiseptics, but the so-called fixed oils and the fat of the body have not been credited with antiseptic powers. Fixed oils, such as the common oils of fruits and nuts, as olive oil, and peanut oil, or cocoanut oil, and animal oils, as sperm and lard oils, will not ferment from yeast, but, on the other hand, render it entirely inactive. If we take a cake of yeast and immerse it in olive oil, it has no fermentive effect upon the oil, and if removed after the lapse of a few hours, the yeast has lost its life and fermentative power. Then to these strong fermentative germs, oil is a true antiseptic and anti-germicide. In the tissues of the body, this power of oil to prevent the growth of fermentative germs must be increased, since oils and fats to the largest extent furnish the products of oxidation, *i. e.*, unite with oxygen in their metabolism, and in this chemical action of fats and oxygen lies their power of equalizing fermentative germs, which are necessary

to life, but which, if carried too far, would assume pathological conditions, and overwhelm the body. There are conditions and germs which no doubt lead to a fermentation of oil, and as a result glycerine and their corresponding fatty acids are liberated, but the germ which has started this process in the oil disappears under the action of still stronger antiseptic properties of oil created. It is said that (1) unknown germs cause neutral fats to take up water and split into glycerin, while glycerin is capable of undergoing several fermentations according to the fungus which acts upon it, but through this action the germ disappears. It is the putrescent substance with which the oil has been associated which has caused the fermentation of oil and the development of still stronger antiseptics, which finally overcome the germ. Oil in itself is said to possess an organic ferment which splits it into glycerin, and that germs of the air may set the glycerin free, inasmuch as these processes go on without our being able to find the presence of a germ, all of which may possess truth in itself.

Oil Destroys Tubercle Bacilli, and Other Disease Germs, and Prevents their Growth.—Oil will completely inhibit the growth of the tubercle bacilli, cause their death and dissolution, and if sufficient time be given, the germ will be completely dissolved or oxidized, and will disappear. These processes which I have carried on outside of the body for experimental purposes should be carried on in the body in the prevention of fermentation of the waste of the lungs, for in its healing fats are used; digested fats and oils are excreted by the lungs principally in the form of carbon, of which we will speak more in detail later. If from the culture media we take a given quantity of tubercle bacilli, and transplant them into oil, they become inactive and will not reproduce when placed in their most suitable culture media and incubator, and finally, if sufficient time is given, they disappear altogether as tubercle germs. Olive oil, as is well-known, has frequently been used as an antidote to the poisonous effects of cantharides (Spanish flies), although the oil dissolves and takes up cantharidin. It would seem that all disease germs would be rendered inactive by oil in the same manner. As the healthy, well nourished body stores oil in fat tissue, and between its muscular fibers and around and in many other tissues, the importance of this fat can not be overestimated, since it not only is a substance which may be drawn upon to supply the needs of the body to a greater extent, and more readily than any other tissue, but it also is a substance capable of rendering disease germs inactive, and is not fermentable by common fermentative germs.

As I have neither the time nor the inclination to carry out experiments in bacteriological growth, and its prevention by oil, and to estimate the bacterianalytic properties of oil which cause the dissolution and disappearance of a given quantity of germs which may be immersed in the oil, I shall endeavor to enlist the laboratories of the Army and Marine Service, where every facility is offered to carry on accurately such experiments, as well as the bacteriologist who may be interested.

Pure Rancid Oils Do Not Contain Germs.—Fats and oils may become rancid from oxidation (2) whereby fatty acid and glycerin may be developed, and although it resembles putrefaction, no characteristic bacteria could (3) be recognized by the microscopic or culture methods, nor could the rancidity of fresh fats be hastened by infection with rancid samples. When (4) olive oil is heated to 220° C., it becomes lighter and nearly colorless, and, at the same time, rancid. The change of fresh oil to rancidity is also brought about by the solution of germs from the nitrogenous products, and of material other than oil. The reason that germs are seldom or ever found is from the fact that they can not develop, but undergo dissolution and solution. It is said that some people can not eat oils and fats, for the reason that the germs of the alimentary canal change the oil or ferment it into glycerin and fatty acids and soaps, and that they thus pass out with the stools undigested, clinically speaking; however, if these same patients persist in taking oil, it will soon be digested, then, have conditions changed, and have the germs been overcome by the products of the oil which they have produced, as the glycerin, which is known to be mildly an-

tiseptic? The patient with a foul breath and stomach experiences a pleasing relief when he adds oil to his daily diet.

Fresh Oils Obtained from Putrescent Substances.—Rancid oils and butter may be rendered fresh again by washing; the substance foreign, if such exists, may be separated. An example of obtaining fresh oil from decaying animal matter is found in factories where animal matter is rendered for its oil. Olives, too, are allowed to undergo an over-ripening before the oil is extracted, while cod-liver oil is rendered in some cases from decayed livers, and the dark oil thus obtained was formerly (5) esteemed most highly, though little given now, on account of its very disagreeable taste. If there is any benefit to be derived from the cod-liver oil produced from rancid livers over that produced from fresh livers it may be from the germs which the oil holds in solution, which when taken internally, might develop certain anti-bodies, and thus possess the property of an antitoxin.

Milk possesses a ferment which is capable of digesting itself (6) and is usually infected with myriads of germs, though perhaps many of them are beneficial rather than harmful (unless the milk is infected with disease-breeding germs, such as typhoid, scarlet fever, tuberculosis, etc.), yet these germs do not affect the fat of the milk, for when separated from nitrogenous products upon which the germs live, as in making of butter from soured cream, we may obtain sweet oil.

While bacteria are desirable allies to the butter maker, and in development of the milk, they are not a part of the true fat, but of the nitrogeneous products clinging to and incorporated with the fat, and as such give flavor to the butter, which would otherwise be considered flat. The same may be true of butter which has undergone putrefaction, for this butter, by washing, may again yield sweet oil. Cheese composed of fat and nitrogeneous matter, depends for its flavor upon the germs which develop in its nitrogeneous part, and, perhaps, in some cases to the fermentation in its oily parts, but it is noteworthy that the germs which affect it in time disappear, that the multiplication of bacteria in cheese is comparatively slow, though in cream, where the nitrogeneous part is greatly in excess, they multiply with prodigious rapidity, increasing as much as six hundred to a thousand-fold within twenty-four hours, but with cheese, while the bacteria increase for some weeks, it is very slow, and after a time comes to an end, and toward the close of the ripening period they are greatly diminished, and at the end there may not be even a single species or a very small number. The oil of the cheese has maintained the equilibrium of fermentation of the cheese, and in the same way the fat of the body maintains its equilibrium of fermentation.

The finest Italian wines, contrary to the usual instruction of placing the bottle on its side to prevent evaporation and other changes, are preserved by placing a small amount of oil in the neck of the bottle, which is placed upright. The oil preserves the wine from over-aging and destructive changes. Recent experiments which I have made point to the fact that wine may be preserved in the same manner for a considerable time with little change.

Fat of the Body and Habitually Digested Oil Meet the Theories of Immunity from Disease. Subcutaneous Injections of Oil Produce Immediate Growth of Blood Cells.—An examination of the blood after an injection shows an increased growth of its cellular constituents, both in number and size. This meets the theory of immunity as to phagocytosis; it also can be applied to the theory of immunity devised by Ehrlich, in that oils either assimilated from the intestine or from subcutaneous injection enter into the circulation. Now, on account of the increased amount of nutrition in the blood, the cells must develop more receptors to receive the nutrition or haptophores, and on this account receptors would be as necessary to grow in excess, and thus be greater in number to combat with pathological germs, and to supply cell nutrition.

The peculiarities of the body juices of immunized animals, and the formation in them or presence of antitoxines, amboceptors, and other anti-bodies, depend upon the separation of the unnecessary receptors from the excessively stimulated cells,

and experiments with the toxin anti-toxin reaction, and the amboceptor reaction indicate that these separated receptors are able to continue their combining functions in fluids containing them. The complementary body or solvent foreign and pathological cells is not accounted for in Ehrlich's theory, and of this we are left in doubt, but is thought to be a property of the blood rather than of an antitoxine injected.

It has not been my intention to claim that oil injected is a true antitoxine against tuberculosis, but that it acts as such in part according to the theories of immunity can not be denied, and the digestion of fats and oils by the intestine shows why some people are naturally immune from many diseases, and particularly of the disease tuberculosis. Clinically, it is proven that when fats and oils can be digested by the tubercular patient, that he improves rapidly from the disease, that the people who habitually eat large quantities of fats never have tuberculosis, and if they do occasionally it is because the fat is not assimilated; and that subcutaneous injections of oil form the most valuable part of the plan of the treatment of tuberculosis, being, perhaps, as near a specific for the disease as anything is possible to be (7), (8), (9).

All Forms of Life Have Their Enemies.—California fights her fruit pests by enemy parasites. The State had spent millions of dollars in the use of sprays, antiseptics, fumigants and investigations, when Mr. Alexander Craw, an etomologist, discovered the parasitic cure, his theory being that every species of animal life has its natural enemy, and that where a certain species appear in abnormal numbers, the natural enemy of the species must be absent, thus permitting the insects to increase without hinderance, and that the natural cure of the pest was to introduce the insects' parasite.

The body in itself has its friends and its enemies in the form of germs, thus we have the fermentative germs of the intestinal tract, which perform and aid digestion, but when these increase above normal quantities they become enemies, which if they in turn had no enemies either organic or inorganic, this form of life would increase so as to overwhelm the body. That which is true of the body is also true of its organs, which in themselves constitute smaller creations. Some diseases may be due to an over increase of germs, which in limited numbers are essential to the body functions, but which meeting no enemy, and no resistance, have increased at the expense of the organ, and either through themselves or the products of their fermentation, have supplied the soil and food conditions for other germs to thrive in. Fats help to maintain this equilibrium of fermentation, of health from disease. What wax (a fatty substance) is to honey in its preservation so is fat to the body.

Heat and Nutrition.—In the animal body, oils and fats as food furnish two and one-half times as much force and heat as any other substance used as food. If other foods must take their place in the supply of this heat, we can see from the more circuitous process through which the digestion of foods other than fats must pass before their conversion into heat, that they must lose some of their value. Other foods aid the digestion of fats, and furnish ferments for the conversion of fats to its activities.

When food is not taken in sufficient quantities with fat in the right proportion, or for any reason is not digested, then to maintain the force and heat of the body the blood must draw from food poorer in heat producing qualities at the expense of the body tissues, and for this reason we meet with many under-nourished people. When heat and force must be drawn from the bodily tissues, where for the time being sufficient food is not eaten, as in the hibernating animals, the fat of the body yields first and foremost to supply this so that the body may maintain its normal temperature, so essential to health, and the prevention of disease, but when the body draws upon its own tissues to supply heat and force, there is lowered vitality, and consequently lowered resistance to the invasion and growth of germs, and there is less fat in proportion to the nitrogeneous parts upon which the germs thrive. The fat between the muscle fibers is exhausted, and, as a consequence, there is no resistance to fer-

mentation in any of the tissues of the body by the oil; but, on the other hand, we have every condition of the body favorable to fermentative changes, there being no fat in the blood, and no fat in the tissues, which are lowered in vitality, and composed of such material as disease germs feed upon. Such changes are contradictory to health, and permits the attack of various bacteria to which the body would otherwise be proof. Under these conditions it is no wonder that fermentative germs may increase beyond their normal function, and give rise to conditions favorable to the entrance of disease germs.

Body Heat a Necessity for the Prevention of Disease (Tuberculosis and Its Cure).—If for any reason too much heat is detracted from the body, as too rapid evaporation of perspiration from sitting in a draft, or the cooling of bodily tissues from the same or insufficient clothing, or a lack of proper food to supply the heat, then we take a "cold," of greater or less severity, affecting the mucous membranes, more perceptibly of the respiratory organs, and giving rise to the excessive flow of mucus, and furnishing conditions which have lowered the heat, continue, then the "cold" may become more severe, and result in death, or to chronic disease of the lungs often resembling tuberculosis, indeed, from which tuberculosis may arise, as a rich soil for its production exists. The necessity of heat for health is therefore evident. Thus the proper amount of heat-producing foods in our diet increase our vital forces against disease.

Composition of Body Fat.—Human fat consists of the three glycerides, palmatin, stearin and olein. Fat tissue consists of little bladders or vesicles of connective tissue, and may be regarded as an altered connective tissue corpuscle, which has become vacuolated, and holds oil. Around the cell and globule of oil is a thin layer of protoplasm. These become larger and more numerous, held together by connective tissue, and supplied by at least one artery and two veins to each composite globule. The bulk and richness of the fat fluctuates with the demands of the system for heat, when such foods as are necessary for its production are not in the daily diet. If an animal such as a hog is deprived of all fat from its diet, then its adipose becomes atrophied, and there exists only a cellular structure, free from oil, the same as has been noted in man. When an animal is deprived of food, the fat cells rapidly give up their oil to maintain heat and vitality; the cells of the fat, however, remain, though diminished in size. If they are partly well fed, even the protoplasm may grow, and the vacuoles may become filled with serous fluid, and they are then called serous fat cells. For this reason, all so-called fat people are not healthy.

Reasons Why All Fat People Are Not Healthy.—For the above reason, and for other reasons which I shall now briefly enumerate, all fat people are not healthy, but the person who keeps his adipose from the eating of oils and fats is healthy, unless he should change his diet to farinaceous foods, when the fat might become serous and lack in oil, the essential part for heat and force. Then fat derived from the eating of foods other than oil and fat is not so rich in its oily constituents, and these people again are not so healthy as those who derive their fat from fat foods and oils. The healthy person is one whose fat is firm with oil, and this comes principally from fat foods; on the other hand, the person who derives his fat from other foods other than oil is more apt to be "flabby," possessing a more serous rather than oil fat.

Epithelium Cells Loaded With Fat Precede the Disappearance of the Bacilli in Tuberculosis.—Characteristic of the tubercle and caseous inflammatory diseases of the lung is the large epithelial cells swollen with fatty substance, and this precedes caseation, during which process the bacilli often disappear. If there is no fat eaten in our diet and the fat tissue of the body has been exhausted of its oil, then no oil can be gathered by these cells, and their contents is more serous and the destruction of bacilli less marked.

Arguments for Subcutaneous Injections of Oil in the Cure of Consumption and Other Diseases.—All of these facts are

arguments for the use of subcutaneous injections of oil for the cure of tuberculosis as I have advocated in previous contributions, (7), (8), (9), (10).

There are other diseases in which subcutaneous injections of oil should be used such as the cachexia of cancer after operation, the treatment of syphilis where mercury is not tolerated, in early Bright's disease and in the treatment of some of the psychopathies and nerve diseases, as locomotor ataxia, after the removal of the cause to build up nutrition.

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Prognosis in Sterility.

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(Continued from page 43.)

I do not intend to discuss the indications for surgical treatment in those cases in which sufficient local cause is found to account for sterility, especially where an operation is clearly justified by the presence of a well-marked pathological condition, and the resulting symptoms. These are enumerated in works on gynecology. Malformations, uterine displacements, neoplasms, puerperal lesions—all these are obvious conditions which should be corrected. We are chiefly interested in the prognosis only so far as it relates to the question of subsequent conception.

In this connection it is proper to call attention to the fact that women have conceived under apparently impossible conditions (even in advanced malignant disease of the cervix), so that we are not in a position to affirm that there may not be exceptions to all the rules. Conversely, too great confidence can not be expressed with regard to the occurrence of conception, even after all the indications have been perfectly met by the surgeon. The length of time which has elapsed without impregnation is always an important element in the prognosis.

Even in the presence of apparent disease of the adnexa, care must be exercised about giving an unfavorable prognosis. Two years ago a multipara, aged thirty-five, was referred to me for an opinion as to the advisability of her submitting to a radical operation. She had been told by a well-known gynecologist that she must undergo hysterectomy for hopeless disease of the adnexa. I found both ovaries and tubes enlarged and adherent, but could not see any indication for such wholesale mutilation. After a short course of treatment with ichthyol tampons (which, of course, had nothing to do with the result), she became pregnant, and was delivered in due time of a healthy child. She has since borne another, having had no local trouble requiring treatment in the meantime. Had I curetted this patient, or performed some conservative operation upon the adnexa, I would naturally have regarded myself (and been so regarded by the patient) as the direct agent in effecting the desired result. This I believe to be a weak point in our statistics of the operative cure of sterility. We do not know whether the patient might not have conceived if nothing had been done. I do not wish to convey the idea that I am pessimistic with regard to the treatment of these cases, but simply to show that it is difficult to decide when a patient absolutely can not become pregnant without surgical intervention.

The question often arises, why is it that so few women, comparatively, become pregnant after divulsion and curettement (certainly not more than one in six), when the only apparent mechanical obstacle to conception has been removed? Some would say that the canal again contracts. But even when it remains patent, and the dysmenorrhea is entirely relieved, this does not occur. In some of these cases the tubes are doubtless occluded, in others the endometrium may again hypertrophy, while in the majority it must be confessed that no satisfactory explanation can be given.

Personally I have always felt skeptical about the direct influence of the operation in the case of women who have only been married a year or two, unless the obstruction was so marked that conception under the circumstances would seem to be impossible. In my experience, conception rarely follows immediately after marriage. There is usually an interval of several months.

One instance in which conception occurred soon after operation turned out disastrously. The patient had been married nine years without conceiving. She menstruated only once, then became pregnant in the tube, the ectopic sac ruptured, and she died after operation. An intraligamentous cyst was found on the opposite side. This leads me to call attention to the well-known fact that ectopic gestation is very apt to occur in women who have long been sterile, especially where this condition is due to former tubal disease, stenosis of the tube being the primary cause of arrest of the impregnated ovum before it reaches the uterus. Hence the natural inference that it may not always be desirable for women to conceive after a long period of sterility.

The attitude of most patients with regard to the question of abdominal section undertaken primarily for the cure of sterility is well illustrated by the following case recently seen in consultation. A highly intelligent lady had been married several years without conceiving. She contracted gonorrhea from her husband some years before, which resulted in salpingitis, for which she was treated successfully by an esteemed colleague of strongly conservative tendencies, and made a perfect symptomatic recovery. Her husband and herself were extremely desirous of offspring, and as the specialist gave an exceedingly bad prognosis in view of the condition of the pelvic organs, the question of operative intervention was discussed, the attendant refusing to operate, since he believed that she was practically in perfect health, and the risk was not justified by the doubtful result.

Another gynecologist was consulted and strongly advised an operation. She was referred to me by her physician, in order that I might give a decisive opinion. I found that she had no symptoms referable to the pelvis. The uterus was retroverted and adherent, and the left tube and ovary were enlarged, prolapsed and fixed by adhesions. The natural inference was that a mild salpingitis had resulted in localized peritonitis and occlusion of the tubes. Curettement, the separation of adhesions, conservative treatment of the adnexa, and internal shortening of the round ligaments would naturally suggest themselves to every surgeon under the circumstances; in fact, this coincided exactly with the advice of the second specialist.

The patient was perfectly willing; in fact, anxious to have the operation, but the point of interest with her was whether she would conceive afterwards, not whether her pelvic organs would be restored to their former normal position, or future attacks of peritonitis would be averted. To her direct question I replied frankly that the operation would be purely empirical. It was highly improbable that she would ever become pregnant in her present condition, and if she did, abortion would inevitably follow. Since no guarantee of positive results could be given, I learned afterwards that her husband was unwilling to have her exposed to the risks of abdominal section.

When there is a history of a previous attack of pelvic inflammation, and well-marked local lesions are discovered, the prognosis will depend upon the more or less successful restoration of the uterus and adnexa to their previous normal condition. The future relief of symptoms would seem to prove that this result has been attained. For example, a lady, aged twenty-eight, married six years, came to

me three months ago principally on account of sterility. She had constant backache, with dysmenorrhea, the flow lasting only a few hours. Examination under anesthesia showed a uterus of normal size, retro-flexed and adherent, both ovaries being prolapsed and fixed by adhesions. After curetting, I opened the abdomen, and found that the ovaries were of normal appearance, containing well-developed Graafian follicles, but they were buried in exudate, the ends of the tubes being occluded. The adhesions were separated, the tubes catheterized, the uterus placed in its normal position by shortening the round ligaments internally, and the ovaries and tubes were sutured in their normal relation to the uterus. The two periods following the operation have been quite normal in amount, and nearly painless. In such a case I felt justified in giving a guarded, though not unfavorable prognosis with regard to future pregnancy. I could at least assure the patient that the conditions were far more favorable to conception than they had been before. So, in a case with less marked local trouble, where sterility had existed for five or six years, curettement having been done three years before, I resisted the suggestion to operate for two years, and after two examinations under ether. There was a sharp anteflexion with an enlarged right ovary, and a history of form appendiccal trouble, marked dysmenorrhea and constant pain on the left side. Coeliotomy was performed, after thorough divulsion and curettement, when the right ovary was freed from adhesions and resected, the appendix removed and slight adhesions were separated on the left side (where the adnexa were normal). The patient has been entirely relieved from pain, but has not become pregnant. What, then, is the prognosis after conservative operations on the adnexa, undertaken with the view of curing sterility, as well as of relieving local symptoms? This does not, of course, include cases in which a healthy ovary and tube are left after removal of a neoplasm of the opposite ovary. I have discussed this question at length in a former paper. Suffice it to say that while I have constantly pursued a conservative course in all my abdominal and vaginal sections, so far I have had only four or five in which the patient afterwards went to full term.

Other gynecologists have been more fortunate, yet the proportion of cases in which conception has resulted directly from the operation is, by reference to the most favorable statistics, not over five per cent. My own feeling has been that the primary result to be aimed at in preserving healthy portions of the ovary is to maintain the function of menstruation, and thus avoid the distressing symptoms following castration in young women. Unquestionably it is our duty to preserve the fibroid uterus in young women where tumors can be exsected with safety, especially when the ovaries are healthy, but we should be careful not to promise too much. Many cases have been reported in which conception and normal labor followed myomectomy, but it must not be forgotten that the ovaries may atrophy after removal of the neoplasms, in consequence of the necessary ligation of large arteries. A distressing case of this nature was recently under my observation. A young married lady came to me showing a letter from a distinguished German surgeon, in which he assured her that having simply removed a fibroid, and left the healthy uterus and adnexa, there was no reason why she should not marry. She enjoyed perfect health, but after menstruating a few times her periods ceased and never returned. I used intra-uterine faradisation at her urgent request, but the uterus was atrophied, and there was every reason to infer that the ovaries were in a similar condition. Much as I wished to encourage the poor woman, who was anxious to become a mother, I could not conscientiously hold out any hope, and she left me, doubtless for some other specialist who could make better promises. The operation was a brilliant success, but the prognosis had been too confident.

I am convinced from a rather extended experience with the after treatment of these cases, and opportunities for study of the conditions in a considerable number of secondary coeliotomies, that we do not realize how often atrophic changes occur in the ovaries after conservative operations, due to the disturbance of the normal vascular supply, and the forma-

tion of intra-pelvic adhesions, with necessary distortion of the uterus and adnexa. In not a few instances marital relations are also painful or impossible on account of shortening and atrophy of the vagina.

To conclude, remembering the possible results of abdominal section, even in uncomplicated cases, it is incumbent on us not to give too confident a prognosis with regard to the cure of sterility. Life may, indeed, be saved and pain relieved, and the patient restored to perfect health, but that she will inevitably become pregnant is more than any man can predict.

In no case, however uncomplicated, is the surgeon justified in promising that conception will follow any operation, however successful it may be anatomically and symptomatically, since experience has shown that the mere removal of mechanical obstacles to the passage of the ovum and spermatozoa into the uterus does not necessarily insure the desired result. On the other hand, we are seldom in a position to affirm positively that conception may not occur under the most unfavorable condition. A fair statement of the result aimed at by operative intervention (whether divulsion and curettement, the correction of uterine displacements, removal of neoplasms, or conservative treatment of the tubes and ovaries) may be thus summarized: The pelvic organs will be restored as nearly as possible to their normal conditions, local symptoms will be relieved or entirely removed, and more serious future trouble may be averted in the case of intra-abdominal lesions, while the possibility of future conception will be greater than if nothing were done.

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Briefs on Genito-Urinary Surgery—Vasectomy for True Spermatorrhea and Prostatorrhea.

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Reputable surgeons unite in the view that true spermatorrhea is a very rare condition. It does, however, exist, and while a large proportion of the cases necessarily fall into the hands of the neurologists, who most often deal with the conditions to which true spermatorrhea is often secondary, a sufficient number of cases are met with both by the general practitioner and the genito-urinary specialist to warrant the serious consideration of the disease.

It is unfortunate that the reputable general practitioner knows so little of the pathology and treatment of the various phases of aberration of the sexual function included under the term spermatorrhea. The ignorance of the profession on this point is one of the principal sources of revenue of the quack, who has no difficulty in classifying nearly all of the disturbances of the sexual function as "spermatorrhea."

It is true that spermatorrhea as a continuous loss of semen does not occur, as was formerly supposed. The losses occur only at intervals, and under special conditions, which are largely mechanical. Bartholow's description of the condition as one in which involuntary losses occur with sufficient frequency to produce a definite morbid state would be accurate enough were it not for the fact that it does not comprehend certain cases of sexual neurasthenia resulting chiefly from the psychic effect of the seminal losses.

It is probable that in most instances the actual physical result of abnormal seminal discharges in the way of a drain upon the system is of no particular moment, but if the impression upon the mind of the patient is sufficiently pronounced as to produce marked neurasthenia, the result is practically the same. In many instances the so-called spermatorrhea is prostatorrhea, a condition in which, as a consequence of inflammation or congestion of the prostate, hypersecretion occurs. In this condition the slightest pressure upon or excitation of the prostate and seminal vesicles produces the discharge. In the majority of cases no seminal elements are found, but in a certain proportion of them, as might be expected, an admixture of these elements is discoverable upon microscopical examination.

Associated with this latter condition is an intense hyperesthesia of the prostatic urethra.

Spermatorrhea is sometimes a symptom of nervous disease, particularly of the spinal cord. Thus it is occasionally seen in locomotor ataxia. In conditions of this kind the sexual disturbance is a secondary consideration, it is true, and should usually be regarded as such with respect to treatment. In some instances, however, it assumes a position of considerable importance, because of its effect upon the mentality of the patient.

Comparatively simple measures of treatment of spermatorrhea and prostatorrhea are usually efficacious. Attention to sexual hygiene, prostatic massage, instillations of silver into the prostatic urethra, of applications of strong salts of silver via the endoscope are generally effective. There are certain cases, however, in which the profound psychopathic disturbance incidental to intractable discharge, whether of seminal fluid or prostatic secretion, or both, demands, in my opinion, more radical measures. Vasectomy affords a certain means of relief in these cases, and considering the fact that the individuals suffering from severe and incurable types of the disease have already lost their procreative capacity, and certain degenerates are really not entitled to the procreative function, there are practically no contra-indications. It would hardly be urged that the procreative function should be conserved in the case of ataxics, nor do I believe that the victims of ataxia themselves, when apprised of the results of vasectomy, so far as procreative function is concerned, will be deterred from submitting to an operation that promises them any relief from what to their minds is the most serious of their illness.

One could scarcely be accused of a lack of conservatism in suggesting the operation to certain degenerates in whom it is usually the result of vicious habits, which no means of physical or moral persuasion will check. Certain types of individuals found in our asylums for the insane, and in whom there is a strong sexual element, are certainly fit subjects for vasectomy.

Prolonged observation of the class of cases under consideration has convinced me that there are certain cases of spermatorrhea, pseudo-spermatorrhea, prostatorrhea and nocturnal pollutions, in which the resulting morbid physical, moral and psychic derangements demand the most radical measures. I believe not only that in such cases vasectomy is justifiable, but I am of opinion that its performance is in harmony with the highest altruism in the relief of human suffering.

In the performance of all mutilating operations upon the testes and the cord, which are likely to interfere with the procreative function, a clear statement of the probable or inevitable results should be made to the patient in the presence of witnesses.

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The Treatment of Atrophic Rhinitis.

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In our last short paper we endeavored very briefly to state the manner in which hypertrophic rhinitis, and its acute manifestation, "colds in the head," could be cured.

Before speaking of the treatment of atrophic rhinitis, we must, in a very few words, consider the causes of this very troublesome ailment. It is much more difficult to cure an atrophic than a hypertrophic variety of nasal disease, because while tissue can be easily removed by surgical measures, it can not easily be replaced. In atrophic rhinitis the pathological process has gradually but surely destroyed the physiological apparatus of the nasal passages; it has killed the tissue which supplies warmth and moisture, and so has caused a most troublesome dryness, which extends from the vestibule of the nose all the way down to the bronchial tubes.

There are certain indications for treatment, which, if met, will make the patient comparatively comfortable. This disease

is mainly found among the poorer classes, among those who are obliged to work in factories or dirty shops, or who do not, perhaps can not, pay proper attention to their surroundings. While we believe that heredity plays a very important part in the causation of this disease, we think, too, that lack of cleanliness, poor food and bad ventilation are also important factors; so that in mapping out a line of treatment for the patient we must insist that he get as much outdoor exercise as possible, bathe the neck and head especially with cold water, do vigorous massaging about the neck and face and nose, and faithfully take such remedies as iron and cod-liver oil, hypophosphites and potass-iodide. Very small doses of the latter, from two to five drops three times a day, will be found of great benefit in the early treatment of the disease, because it will increase the secretion, and so make the mucous membrane more moist, and therefore throw off the dry, thick scabs which accumulate.

We believe, therefore, that while the causes of a hypertrophic process are mainly of a local character, that in the atrophic variety the general condition of the patient largely predisposes to it.

It is almost absolutely a fact that no surgical procedures are necessary in the treatment of atrophic rhinitis, since as has been stated, the mucous and submucous tissues, and the bony framework of the nasal pasages have so shrunken that the nostrils are far too open, and so admit too large an amount of air, dirt and dust to sweep through against the pharynx, and so down into the respiratory tract.

There are only two exceptional indications for surgical work; one is the partial removal by scissors or forceps of the middle turbinated bone, when that body is so much enlarged as to be wedged hard down upon the nasal septum, preventing proper drainage. Only a very small portion of this should be removed by scissors and cutting forceps, just enough to allow the passage of air between it and the septum. An aperture of one-sixteenth of an inch is quite sufficient. The only other indication for surgical procedure is in a case where the septum is so bent upon itself, and deviated from the median line, that while one nasal passage is very narrow, the other one is so abnormally large as to have become atrophied simply because of its overphysiological action and use. Here the advanced atrophic process in the wide nostril can be very much relieved by fracturing and carrying the nasal partition to the median line. This is all that is necessary; and no cutting need be done with scissors, as we do in those cases of very high, arched palate, where we desire to get rid of a redundancy of nasal partition. In the former there is no surplus of tissue, and the carrying of the partition into the median line is all that is necessary.

The detailed medical treatment of these cases must include constant cleansing and oiling at home. We have never believed in the necessity of using large quantities of fluids by means of fountain syringe. We think the better way is to use a lukewarm saline solution (three-fourths of a teaspoonful of salt in a glass of water), and the patient is instructed to hold the solution high up, place the nose in the solution, and gently breathe it through the nose with the mouth open. Patients must be made to understand the importance of keeping the mouth open, otherwise the middle ear may become inflamed. Washing the nasal passages three times a day should be sufficient. We prefer the simple saline solution because we have found that solutions of carbolic acid, bicarbonate of soda, and many of the newer nasal disinfectants, when long continued produce an after dryness because of their rapid evaporation and volatile ingredients. We think that many of these remedies are too acid in their reaction, and have suggested the composition of a nasal wash which has proved very satisfactory, viz.: alkaline thymoformol. This solution is alkaline, soft and mild, and produces no irritation or undue stimulation after its daily use. About one tablespoonful of this in a glass of water may be used advantageously as a substitute, or an alternate, for the simple saline solution. Plain liquid albolene thrown into the nose with an atomizer is better than strong oil solutions of menthol, thymol and eucalyptol or

camphor, because they, too, produce dryness by their rapid evaporation.

As we understand it, the only efficacy of the oil is to lubricate so that any simple, cleanly oil answers the purpose.

It is not well to direct the patient to use oily sprays continually, but rather to discontinue them for several days after using them for a week. It is our habit to rub the mucous membrane not only on the septum, but on the turbinate side thoroughly with a prescription as follows:

℞ Eucaine .....4 grains.
Alkaline Thymo-Formol .....4 drachms.
Water.....1 ounce.

By rubbing the nasal surface with such a solution every day for a week, and then every other day for a week, the dry, granular surface can be made smooth and more moist, so that scabby secretions will be less likely to be retained. We might call this a polishing process.

During the three or four days of an acute catarrh, which frequently takes place in an atrophic rhinitis, the mucous membrane should be kept protected and disinfected by a compound stearate of zinc and boric acid. This is to be pursued only for a few days because the powder would eventually make the nasal passages too dry.

We have used the Wappler glass electrode with the static machine more successfully than the older electrodes, and the galvanic current.

During the very cold days in winter in advanced cases of atrophic rhinitis protection by means of a respirator, or the wearing of a veil, is required, and many patients get considerable relief by introducing small pledgets of cotton in the nasal passages. None of these are required in warm weather. The physician should not forget the importance of prescribing the tonics, and the sanitary methods of living which were referred to earlier in this paper.

123 East Nineteenth Street.

Enclosed find one dollar to pay for the BRIEF for another (1905) year. This makes my fourteenth year, and I am not tired of the BRIEF yet. Long live the Editor and Old Doc.—T. DEASON, M. D., Rhodes, Tex.

[Written for the MEDICAL BRIEF.]

Pemphigus.

BY A. H. OHMANN-DUMESNIL, A. M., M. D., M. E., PH. D.,

Formerly Professor of Dermatology and Syphilology in the St. Louis College for Medical Practitioners, the St. Louis College of Physicians and Surgeons, the Marion-Sims College of Medicine; Consulting Dermatologist and Syphilologist to the St. Louis City Hospital, St. Louis Female Hospital, St. Louis Poor House, etc.; Editor and Proprietor "St. Louis Medical and Surgical Journal." St. Louis.

It is an unfortunate fact that an adequate knowledge of skin diseases is not possessed by the rank and file of the medical profession, and this is easily understood when we take into consideration the fact that it is only in comparatively late years that any attention has been paid to adequate instruction in these troubles under the mistaken idea that they amounted to little or nothing. A most erroneous conception of the facts in the case from the well-known circumstance that these diseases are daily acquiring more and more prominence as well as attracting more attention at the hands of the medical profession. The specialist is certainly necessary, but it is equally true that the general practitioner should only resort to him when it is absolutely necessary, and not in those cases which he is perfectly competent to successfully treat.

For this reason he should perfect himself in those affections which, while far from being rare, are often appalling in their appearance, and yet susceptible of being relieved by the simplest methods. It is with this idea in mind that it has occurred to the writer to describe the symptoms and treatment of a skin disease which has puzzled many a practitioner of medicine, and has given some difficulty to his chosen specialist, because the latter bore in mind the pathology more than the treatment of the disease.

Pemphigus is a disease of the skin which has been divided into a number of classes, such as pemphigus vulgaris, pemphigus vegetans, pemphigus foliaceus, pemphigus verrucosus, etc.

It is our purpose to take up here pemphigus vulgaris, which is a chronic bullous

disease of the skin, and not comparable in its fatal effects to pemphigus acutus, which not infrequently brings on a lethal termination in a few days. It is a disease which to the practised eye is easy of recognition, and not difficult to identify. In fact, he who has seen but one case, and has observed it well, will never make a mistake. And yet, as will be shown, later on, it is one of the diseases most easily confounded with that bane of dermatology, dermatitis herpetiformis, and has led to almost interminable discussion in regard to the proper identification of both.

Pemphigus vulgaris is essentially a chronic disease of the skin which is characterized by an eruption of bullæ, blebs, or blisters, which vary in size from a hen's egg to a pigeon's egg, and which may be hemispherical, semi-ellipsoid, or elongated in shape, and raised to a marked degree above the skin, and filled with a serous fluid.

An external infection may render this fluid turbid or purulent, but this is an uncommon occurrence, and, as a rule, the environments of the patient will easily determine the reason of any such infection. However the case presents itself, the patient will complain principally of the hideous appearance of the eruption, and of the subjective pains which are its accompaniments.

These are similar in all cases, and it is hardly a difficult matter to rid the patient of both. Whatever the treatment determined upon, it should certainly be aseptic so far as local measures are concerned, and it should be one that is radical in respect to the internal remedies administered.

It may not be inappropriate here to state that the disease is one observed both in children and in adults. In the former it is not so severe as in the latter, as a rule, and recoveries are much quicker. Women are not more susceptible than men, the proportion being about equal, so far as the writer has observed, but a fact that has been noted is that those of a susceptible nervous temperament are more subject to the trouble than those who are phlegmatic, and of a lymphatic temperament.

But a few words need be devoted to the pathology of this disease. It has been contended by some authors that its origin is bacterial in nature, and that, on this account, it is contagious. On the other hand, as good authority, and the author is among this number, has failed to find micro-organisms which could be regarded in the light of a causative nature. Some saprophytes, perhaps, of external derivation, have been found, but no specific organisms could be isolated, or cultures made from them, from which pure cultures might be made and inoculated in favorable soil. But what the writer has found is a true neurotic cause, due to a disturbance of the sympathetic nerve ganglia, and treatment directed to a correction of this condition has resulted in the best results of a curative nature permanent in its effects.

This naturally leads us to a consideration of the remedial measures to be taken in cases of pemphigus vulgaris. These measures should be both constitutional and local in order to secure the best possible measures in the most rapid time. Whilst an untreated case may go on to the spontaneous bursting of the bullæ, and a consequent ulceration and suppuration of the raw surface, which is thus denuded, proper local measures will bring about a clean condition, which will rapidly heal without pain or any other disagreeable or inconvenient symptom.

This is most important in adults who are compelled to work, and in whom the lesions may occupy localities which interfere with the necessary movements incident to their duties. For this reason a rapid, cleanly, and pleasant method is the one to adopt, and of the highest importance to the patient, gratifying as well to him as to the physician.

The method to be employed may be briefly described as follows:

Open widely all the bullæ with sharp-pointed scissors, and freely apply a powder composed of the following:

℞ Nosophen.....2 drachms.
Bismuthi Subnitrate.....4 drachms
Magnesiæ Carbonat.....1 drachm.
M. Sig: Apply two or three times daily.

The oozing will rapidly cease under this application in conjunction with the

following treatment, which is for an adult:

℞ Acidi Arseniosi.....2 grains.
Pulv. Piperis nigris.....2 drachms.
Ext. Gentian, q. s.

M. ft. caps (No. 5) No. 40. Sig: One capsule after each meal.

In the case of children, capsules can not be ordered, as they will, in all probability, refuse to take them. In order to obtain the same results, a liquid can be ordered which will act as well, according to the following formula:

℞ Liq. Kali Arsenit.....2 drachms.
Vini Ferri.....2 ounces.
Syr. Limonis.....2 ounces.

M. Sig.: Teaspoonful after each meal.

This dose is applicable to children from four to seven years of age. The physician may regulate the dose according to age.

The reason of administering arsenic internally in this disease is that it is essentially dependent upon a disturbance of the sympathetic nervous ganglia, and as arsenic is a tonic to the entire sympathetic nervous system, and its ganglia, we have in it the logical therapeutic agent in pemphigus. In addition to this experience has demonstrated its indubitable value to the writer, and, after all, we must all accept the old Latin saying, "*Experientia docet*" (experience teaches), and it is certainly good practice to hold to that which is good.

Under the form of treatment just outlined, the prognosis is of a most favorable kind. The writer has seen mild cases recover in seven to ten days, and no relapses occur for more than ten years. It is for this reason that it can be recommended. The utmost care should be taken not to confound a case of dermatitis herpetiformis for it, as it is a notoriously intractable trouble which is continually relapsing. The longer a case of chronic pemphigus has existed the longer a time is necessary for a cure, but, under proper treatment such as has been outlined above, a comparatively rapid recovery may be expected.

5 South Broadway.

Find enclosed one dollar for subscription to the MEDICAL BRIEF for 1905. I am highly pleased with the BRIEF.—S. F. OLEN, M. D., Brentwood, Tenn.

[Written for the MEDICAL BRIEF.]

Some Clinical Notes.

BY GRACE M. NORRIS, M. D.,

Graduate of Woman's Medical College, Baltimore, Md.; Fellow in Ophthalmology of the Golden Gates College, Chicago, Ill.; Member of American Association of Physicians and Surgeons; Formerly Clinical Assistant in the North End Dispensary and Hospital of Boston, Mass.; Member of the Medical Society of Woman's Medical College, Baltimore, Md. South Columbia, N. Y.

It is not my intention to go into an exhaustive article on a remedy that covers so large a field of usefulness, but to give briefly the everyday points, in cases I treated with ecthol; and to illustrate the benefit derived from this preparation. I will relate the clinical histories of several of the cases treated by me in the clinic of the Woman's Medical College of Baltimore, Md.

Case 1.—Mrs. R. H., widow, colored, aged sixty, consulted me because of a "sore leg," which began to trouble about five years previously. It began from a break in the skin, caused by striking the handle of a clothes wringer against her leg, and had been growing larger ever since until at the time of the consultation it was as large as the palm of the hand. She stated that at times it was so painful that she could not rest in any position. I tried various remedies, but none of them seemed to afford any relief. Finally I prescribed ecthol, one teaspoonful four times a day, and also directed her to use it as a lotion, after carefully and thoroughly cleansing the parts with warm sterile water and soap, three times a day. At the time of the consultation the ulcer was very foul smelling, angry and putrid in appearance. She reported in one week and I found the condition of the ulcer very much improved in appearance and odor, if not in other respects. On some parts of its surface healthy granulations could be observed, and at the edges it had assumed a very much more healthful condition. The applications of ecthol were continued with the result that at the end of three weeks the place had entirely healed. An examination of the leg a few months later showed the place as firm and intact as any part of the tegumentary system and it was assuming a normal appearance.

Case 2.—Mrs. S. H. R., white, aged sixty-five. On calling to see her found her suffering from sores on her foot the characteristic odor of gangrene; tissues very black; sloughing began and ulcers present with foul odor. These were cleaned in hot sterlile water thoroughly dried and dressed with absorbent cotton wet with ecthol. Ecthol was given in doses of a teaspoonful every two hours. In first twenty minutes after ecthol dressing was applied she was relieved from pain and had the first sleep she had enjoyed for several nights. The limb was dressed daily and the internal treatment continued. On the fourteenth day nearly all of the ulcers were completely healed. On the eighteenth day all of the ulcers were healed, and she has continued to do her washing and home work uninterruptedly since.

Case 3.—Mrs. A. L. T., colored, aged forty-six. She had an ulcer on both legs, each of ten years' duration, when she applied for treatment. Stated that several physicians had treated her, but none had given any relief. The ulcers were very indolent, their edges being exceedingly hard and indurated, the discharge was not very much in amount, but was putrid in character, and very offensive, and large deposits of fibrin had formed in the edges of the ulcers. I prescribed ecthol internally and as an application, directing it to be applied morning and night after thoroughly cleansing with warm sterile water and soap. The ecthol was administered internally and external applications were continued for three weeks before much improvement could be noticed, but from that time on the improvement was good, and in one month's time the ulcers had healed. This case was a very stubborn one, but recovery was final, and there has been no relapse.

Case 4.—Miss B. S. C., white, aged forty-eight, afflicted with erysipelas. There was intense itching and burning of the left foot, and blisters were also present. She had suffered with this for about ten days, and nothing having given her even temporary relief, she was consequently in a very nervous state. She had scratched the parts until they were raw and bleeding profusely. Prescribed ecthol, teaspoonful every hour, and having deterged the affected portion with sterile water and soap, ecthol was applied, bathing it with this preparation for about ten minutes, and bandaged it. In just exactly half an hour the itching and burning had entirely ceased, and on the third day the dressing was removed, and she has had no trouble with it.

Case 5.—Mrs. K. H. L., white, aged twenty-four, five months pregnant, presenting a most persistent case of pruritus vulvæ. The itching was continuous and almost unendurable, the vulvæ and environing parts also being affected. She had used many medicaments without even a soothing palliative influence, had lost weight considerably, and was altogether a most distressed individual. Immediately began the treatment. First cleansed the parts with sterile water to remove the remnants of the former medications she had employed, and applied ecthol freely, after which a linen cloth was thoroughly moistened with ecthol and laid on portions affected. The ecthol afforded instant relief and in four days she was entirely and permanently cured. Applied the remedy four times a day and oftener if necessary, and administered a teaspoonful four times a day.

Case 6.—Miss L. H. R., white, aged twenty-three. Had acne for the past three years, the eruption confining itself to her face, which was most disgusting to behold and so mortified her that she refrained from appearing among people any more than she could help. Prescribed ecthol internally teaspoonful four times a day, and externally to face. In a few days the eruption had disappeared and she had no relapse.

Case 7.—Mrs. B. C. N., white, aged thirty, ulceration of cervix, taking in almost the entire lip of the cervix on the left side, and extending up on the external surface; of ten years standing, and had resisted many vigorous treatments. Administered ecthol internally, teaspoonful four times a day, and applied tampons of the preparation. Removed tampons every six hours, for a week, thenceforward twice a day. In three weeks the case was discharged.

Case 8.—Ruth R., one year old, colored. Had an abscess gather and break in the ear. The ear was carefully cleansed, then

ecthol dropped in and the auditory canal plugged with cotton. This treatment was repeated three times a day and in four days the ear was healed.

Case 9.—Mr. R. H. B., colored, aged twenty-three. Had a well-defined carbuncle on the back of the neck, the size of a twenty-five-cent piece, with four perforations. Patient said he had suffered for two months so severely that he could only sleep a few minutes at a time, and unless some relief could be afforded, he must resort to morphine, which he resolutely abstained from, having a dread of the drug. He was requested to be patient and he would be relieved. Prescribed one teaspoonful of ecthol every two hours. Ulcer was dressed with this preparation and in a month's time the case was discharged.

Case 10.—Mr. C. N. H., white, aged thirty, carbuncle on the back of his neck, suffered fearful and incessant pain, utterly prohibiting sleep, and mitigated to bare endurance by one-eighth grain of morphine every three hours. The sore was exuding dead cellular membrane. Its edges were very ragged and raised, inflammatory edema, showing high inflammation, which accounted for the extreme pain. Prescribed a teaspoonful of ecthol every two hours and injected a hypodermic of ecthol around it, and then prepared a dressing of ecthol. The agonizing pain at once subsided, the morphine was stopped. Next day the carbuncle was curetted and the wet dressing of ecthol continued. In about five weeks it was completely and smoothly healed, with no depression of the surface, and a hardly noticeable soft pink cicatrix, the only trace remaining to mark its site.

[Written for the MEDICAL BRIEF.]

Are Proprietary Medicines Ethical?

BY J. R. PHELAN, M. D.,

Editor Oklahoma *Medical News-Journal.*
Oklahoma City, Okla.

In writing an article under the above heading, we must make a distinction between proprietary and patent medicines. We might define them by saying that proprietary medicines are those of a known formula, and sold under a copyright name, and are advertised to the medical profession only. While patent medicines are those of a supposed secret formula sold under a patent name, and advertised in the magazines and newspapers to the laity.

In some instances it may seem hard to make a distinction, for some of the proprietaries approach so near the line of patent medicines that it would almost take an expert to distinguish them.

The point I wish to bring out in this paper is, where shall we draw the line? Which shall we class as ethical, and worthy the patronage of the practicing physician, and which shall we class as non-ethical, and not to be prescribed by the doctor?

Our forefathers used crude drugs, and did their own compounding, or had it done by the apothecary. These compounds were as a rule very nauseating and unpalatable. No wonder the mothers used to deter their children from doing wrong by admonishing them with "if you do that I will have the doctor give you some medicine."

To-day we can note as much advancement in medicine as in any other profession or industry. By a peculiar process, castor oil is made palatable, quinine is now put up in a form pleasant to the taste, cod-liver oil is no longer disgusting, iron is deprived of its corrosive qualities, and acetanilid of its heart-depressing effects. Opium is no longer constipating, and has become a safe anodyne for children.

Does not the chemist who has brought about this agreeable change, or who has transformed these drugs into palatable and safe preparations, merit some praise and recognition from the dispensers or general practitioner? I think so.

It is true that many practitioners are prejudiced against these preparations, and they will offer you good reasons for their stand. They will tell you that many of the so-called proprietary medicines have their monogram stamped upon the very tablets themselves, and these coming into the patient's hands will at once suggest to them the inquiry, "What does this mean?" Others, they say, will request of you to dispense their preparation in "original packages," which contain stamped in the bottle the name of the

preparation, and pasted to it a circular giving all the indications for which it is to be used, with full directions.

This, they say, is an invitation for the patient to go to the druggist and buy the preparation in the future, thus a saving to them of the physician's prescription fee. Now, can you blame them? Their objections sound reasonable.

The proprietary manufacturers will tell you that it is essential for them to stamp their trade-mark upon their preparations in some indelible way. This is to protect them against the substituter—the dishonest druggist.

There is a happy medium which should be brought about between the proprietary manufacturers and the practicing physician. It is only too true that many of the proprietary preparations are advertised too indiscreetly, and this has caused a prejudice against all proprietary preparations among many of the best physicians. And on the other hand we often know of physicians prescribing some of the most vile of patent medicines.

How will we remedy the evil? Let the proprietary manufacturers label their preparations by their scientific name, the same as the standard pharmaceutical preparations. Send the literature direct to the physicians, and have their preparations given in the *materia medicas* and pharmacopeias, giving their therapeutical and physiological action, have the legislatures of different States inaugurate stringent laws against druggists substituting, and have same rigidly enforced.

The physician should investigate the preparations he is prescribing, see if any of them are being advertised in lay journals, magazines or newspapers, and if so, he should discard them at once. Those preparations which (the advertising) are strictly confined to the medical profession, the formulæ of which are furnished the physician, and the preparation being an improvement over the crude drug or pharmaceutical product. The proprietary preparations of this kind should receive due consideration from the physician.

I like the MEDICAL BRIEF very much, and enclose check for 1905.—S. M. CUMMINS, D. D. S., Elkhart, Ind.

[Written for the MEDICAL BRIEF.]

Idiopathic Hemorrhage of the Lingual Tonsil.

BY JAMES M. BROWN, M. D.,

Professor Laryngology and Speech Defects, Dearborn Medical College; Assistant Professor Laryngology, Chicago Polyclinic, Associate Laryngologist Cook County Hospital, Chicago, Ill.

Recently my attention has been directed to several cases wherein there occurred a hemorrhage from the throat, the cause of which was for a time somewhat vague in that the source was the lingual tonsil, which can be easily overlooked. Situated at the base of the tongue behind the circumvallate papillæ and above the attachment of the epiglottis, the tonsil appears as a series of rounded elevations composed of adenoid tissue. The importance of the lingual tonsil, from a physiological and pathological standpoint, can readily be overlooked. It has an intimate vascular and lymphatic connection with the tongue, the upper portion of the larynx, pillars of the fauces and the lateral pharyngeal walls rendering it liable to irritation from food, and it tends like other gland structure to alteration, dependent upon systemic or associated local lesions.

When the lingual tonsil becomes hypertrophied, or is the site of a mycosis, then symptoms are quite marked, and usually amenable to treatment. The following cases were typical and comparatively free from any catarrhal condition or other predisposing causes of cough, but the main and alarming symptom was the presence continually of blood in the sputum which at first seemed unaccountable.

Case 1.—J. H. E., merchant, family history good; complained of a slight cough, accompanied by a slight discharge postnasally, and moderate nasal occlusion. Previous health had been good, with the exception of a mild attack of acute otitis media one year previous.

At the time the patient presented himself for treatment there appeared frequently in the sputum quantities of blood. To all appearances otherwise the sputum appeared normal, which was confirmed by bacteriological examination. Chest examination failed to reveal any further in-

volvement. Close examination by means of the laryngeal mirror, presented to view upon the laryngeal tonsil a number of saccular dilatations, and surrounding these were numerous dilated blood vessels, some which had ruptured.

By the application of caustics and mild astringents, the tonsil decreased in size, and presence of blood disappeared, and from last account the patient had experienced no further difficulty.

Case 2.—Medical student, family and previous history good. Had caught cold and complained of hoarseness, dry cough and slight tenderness in the throat. The sputum contained blood. Bacteriological and other thorough examinations were made as in the case preceding, which failed to reveal the cause of the condition. The patient stated that he had used various gargles and taken medicine without any apparent results. Being forewarned by Case 1, examination was made by means of the laryngeal mirror, which revealed almost identically the same condition as in the preceding case, and which yielded readily to treatment. About three months later the patient returned for treatment, complaining of a constant cough, thick tenacious sputum streaked with blood, and a general debilitated condition. At this time the lingual tonsil was in a normal condition, the pharynx and larynx appeared to be acutely inflamed. The sputum now showed the presence of tubercle bacilli, and on examination of the chest there was a consolidation of the right apex. The patient was induced to try a change of climate, and last reports from him were quite favorable as to recovery.

At the outset these two cases presented practically the same symptoms, and in my opinion the cause was the same. So often the lingual tonsil can be overlooked, but when the dilated condition, saccular, bounded by areas of inflammation, are observed, the cause of the hemorrhage can hardly remain in doubt. In the second case it is my belief that the first symptoms may, perhaps, have been the primary signs of the tuberculosis, but that the condition had not advanced to the stage of the disease in which the hemorrhage was laryngeal or pulmonary.

34 Washington Street.

[Written for the MEDICAL BRIEF.]

A Study on Light, A Few Timely Scientific Facts Related for the Comprehensive Understanding of the Practitioner.

BY J. MOUNT BLEYER, M. D., F. R. A., M. S., LL. D.,
New York City.

(Continued from page 50.)

Although we do not fear heat and light can be confounded in the mind, so different are their phenomena, and yet so close, yet it is important to show how far these two principles have been separated from each other. Transparent bodies have different powers of colorific transparency, or transcalescence, some obstructing the heat of bodies at very high temperature, almost entirely in the thinnest layers; whilst others will allow even the heat of the hand to pass through a thickness of several inches. Liquid chloride of sulphur, which is of a deep red color, will allow sixty-three out of one hundred rays of heat to pass, and a solution of carmine in ammonia, or a glass stained with oxide of gold, rather a greater number; yet these transparent media obstruct a large quantity of light. Colorless media, obstructing scarcely any light, will, on the contrary, prevent the passage of calorific rays, but of every hundred rays spirits of turpentine will only transmit thirty-one, sulphuric ether twenty-one, sulphuric acid seventeen, and distilled water only eleven. Pure flint glass, however, is permeated by sixty-seven per cent of the thermic rays, and crude glass by forty-nine per cent. The most perfect diathermic body is diaphanous salt rock, which transmits ninety-two, while alum, equally translucent, admits the passage of only twelve per cent.*

Black mica and black glass are nearly opaque to light, but they allow ninety per cent of radiant heat to pass through them.

*The following table of the rays penetrating colored glass has been given by Melloni in his memoir on the free transmission of radiant heat through different bodies:

Deep Violet	53	Deep Yellow	40
Yellowish red (flaked)	53	Bright Yellow	34
Purple Red (flaked)	51	Golden Yellow	33
Vivid Red	47	Deep Blue	33
Pale Violet	45	Apple Green	26
Orange Red	44	Mineral Green	23
Clear Blue	42	Very Deep Blue	19

Translated in the Scientific Memoirs, Vol. I, p. 30.

Whereas, a pale green glass,* covered with a layer of water or a very thin plate of alum, will, although perfectly transparent to light, almost entirely obstruct the permeation of heat rays.

We thus arrive at the fact that heat and light may be separated from each other; and if we examine the rays of the sun by that analysis which the prism gives us, we shall find that there is no correspondence between intense light and ardent heat. By experiment it has been shown that where we have in the prismatic spectrum the most light, as in the yellow ray, we have only a temperature of 62° F., but below the red ray, out of the point of visible light, the temperature is found to be 79° F., while at the other end, in the blue ray, it is 56° F., and at the end of the violet ray no thermic action can be detected.†

From the circumstances, that as we, by artificial means, raise the temperature of any body, and produce intense heat, so we also occasion a manifestation of light after a certain point has been obtained,‡ it has been concluded that heat and light differ from each other only in the rapidity of the undulations of an hypothetical ether.

It must be admitted that the mathematical demonstrations of many of the phenomena of calorific and luminous power, are sufficiently striking to convince us that a wave movement is common to both heat and light. The undulatory theory, however, requires the admission of so many premises of which we have all the proof; its postulates are, indeed, many, the array of talent which stands forward in its support.

The undulatory theory shows us that by the measurement of the velocity of light it was absolutely proved that New-

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*"The physical characters of this species of glass, which acts so differently from the other species of colored glass in all the phenomena of calorific, are, first, its intercepting almost totally the rays which pass through alum; second, its entirely absorbing the red rays of the solar spectrum. I have already stated that their coloration is produced almost entirely by the oxide of copper.

"Thus the coloring matters of the colored glasses, while they so powerfully affect the relations of quantity which the different rays of ordinary light bear to each other, exercise no elective action on the concomitant calorific rays. This curious phenomenon is the more remarkable as the coloring matters absorb almost always a very considerable portion of the heat *naturally transmitted by the glass.* The following are, in fact, the calorific transmissions of the seven colored glasses referred to as the transmission of the colored glass which is represented by 100; red glass, 82.5; orange, 72.5; yellow, 55; bluish-green, 57.5; blue, 82.5; indigo, 30; violet, 85. The quantity of heat absorbed through the action of the coloring substances is, therefore, 17.5 in the red glass, 27.5 in the orange, 45 in the yellow, 42.5 in the green, 47.5 in the blue, 70 in the indigo, and 15 in the violet. Now, as these absorptions extinguish a proportional part of each of the rays which constitute the calorific stream transmitted by common glass, they may be composed, as we said before, with the absorbent action exercised on light by matters more or less deeply brown or dark, when they are immersed in water or some other colorless liquid, which dissolves but does not affect them chemically."—Annales de Chimie et de Phys., Tome XI, page 382.

Guided by these principles, the author selected the glass employed in glazing the Royal Palm House, at Kew Botanical Gardens, where it was desired to obstruct the passage of those rays which had a particular scorching influence.

†In Philosophical Transactions, Vol. XC, several papers by Sir Wm. Herschel, may be consulted. Investigation of the powers of the prismatic colors of heat and illuminate objects, with remarks that prove the different refrangibility of radiant heat, to which is added an inquiry into the method of viewing the sun advantageously, with telescopes of large apertures and high magnifying powers, page 255; Experiments on the refrangibility of the invisible rays of the sun, page 284. Experiments on the solar and on the terrestrial rays that occasion heat, with a comparative view of the laws to which light and heat, or rather the rays which occasion them, are subject, in order to determine whether they are the same or different, pages 293 and 437. In connection with this inquiry, Sir Herschel remarks that since a red glass stops no less than six hundred and ninety-two out of one thousand such rays as are of the refrangibility of red light, we have a direct and simple proof in the case of the red glass that the rays of light are transmitted, while those of heat are stopped, and that thus they have nothing in common but a certain equal degree of refrangibility, which by the power of that glass must occasion them to be thrown together in the place which is pointed out to us by the visibility of the rays of light. In connection with the same subject a memoir by Sir Henry Englefield, in the Journal of the Royal Institution for 1802, page 202, may be consulted.

‡Dr. Drapper, on the production of light by heat, in the Philosophical Magazine for 1847. Sir Isaac Newton fixed the temperature at which bodies become self-luminous at 635°; Sir Humphrey Davy at 812°; Mr. Wedgewood at 947°, and Mr. Daniel at 980°; while Dr. Drapper from his experiments gives 977°, and Dr. Robinson at 865°. In a review of the above paper by Melloni, entitled Researches on the Radiations of Incandescent Bodies, and on the Elementary Colors of the Solar Spectrum, translated for Gillman's Journal for August, 1847:

"I say that they conduct, as do others heretofore known on light and radiant heat, to a perfect analogy between the general laws which govern these two great agents of nature. I will add that I regard the theory of their identity as the only one admissible by the rules of philosophy, and that I consider myself obliged to adopt it until it shall have been proved to me that there is a necessity of having recourse to two different principles, for the explanation of a series of phenomena which at present appear to belong to a solitary agent."

Reference should also be made to a paper by Dr. Robinson, on the "Effects of Heat in Lessening the Affinities of the Elements of Water," in Translation of the Royal Irish Academy, 1848, where he says that, "when a platinum wire is traversed by a current gradually increased till it produces ignition, the first gleam that appears is not red, but of a color which, when I first saw it, I compared to the lavender rays discovered by Sir John Herschel beyond the violet, though I was surprised at seeing the tip of that most refrangible ray, preceding the ray which is least so. It is quite conspicuous at about 865°, and as the mode in which it makes its appearance presents nothing abrupt or discontinuous, it seems likely that it is merely a transition from invisible rays excited at a lower temperature to ordinary light." Page 310

ton's corpuscular theory of light was untenable, and that therefore, as far as that theory was opposed to the undulatory theory, the undulatory theory must be accepted as true. There are a vast number of other facts, however, which tend to prove the truth of the undulatory theory both directly and indirectly.

But there is no theory in physics so firmly demonstrated as this. Our belief in the truth of the undulatory theory rests on the fact that it explains a vast number of totally different phenomena in a perfectly clear way; in fact, there are no phenomena in the theory of light which, if they have not been explained by the undulatory theory, we are not justified in saying could be explained by it if our mathematical analysis were sufficiently powerful to translate the meaning of the theory completely. But the undulatory theory of light was acquired certainly from a vast number of independent sources as well. In order that the radiations from a luminous body may be propagated through the ether, it is necessary that the luminous body must have its molecules in a state of rapid vibration; and not only has the whole science of spectrum analysis led up to this, to point out that the molecules of different bodies are vibrating in certain definite periods, such as will give vibrations off to the ether, and ultimately send them so as to strike the eye, but also a number of theories which have been reached independently, all tend to converge to this same point, and show us that not only are the molecules of a body in a state of rapid vibration, but that there is an ether capable of transmitting those vibrations.

The splendid experimental results obtained by Prof. Graham in connection with the diffusion of gases have proved almost beyond a doubt that the molecules of gases are moved about with a very great velocity, and means have been devised actually to measure the very velocity with which they are moving. The researches of Clausius, Clark, Maxwell, Thompson, Rankin and others have reduced the science of molecular motion of gases to an absolute certainty, so far as theory can be certain, and they have explained the laws perfectly upon this assumption. The very size of one of these molecules has been determined by Sir William Thompson in four different manners, all of which agree, within fair limits, with each other, and from arguments which it is impossible for me to go into at present, Sir William Thompson has showed what is, in all probability, that actual nature, form and motion of those molecules. He shows that an atom is, in all probability, nothing more or less than a vertex ring. You have all seen smoke rings which have been formed from the mouth of tobacco smoke, or which are often seen coming from the mouth of a cannon—a ring of smoke passing through the air, with considerable velocity, and this ring having convolutions from the exterior of the ring into the anterior of a vertex atom, as defined by Sir William Thompson.

(To be continued.)

Medical Laws.

Chicago, Ill., December 24, 1904.

Editor BRIEF, *St. Louis, Mo.*

DEAR SIR.—Your article on "Medical Laws" in the January BRIEF is beyond criticism, except in one point; you take pains to lay the blame on the politicians. The truth is that medical laws are never passed except on the urgent appeal of some interested doctors. Who got the Homeopathic boards established? Homeopaths. Who got all the Osteopathic legislation enacted? Osteopaths. Who are now working to shut out all forms of healing but the regular and accepted forms? Not the politicians. They do not care a rap.

But doctors are banding together to procure more laws; more power for State and County Boards. Doctors are urging the boycott on legislative candidates who will not agree to vote for certain bills.

It is the medical politician that is at the root of the evil. He urges that the nation will go to the devil if certain laws are not enacted; he uses the unthinking physician as a catspaw; he feasts on the fees and the rank and file of the profession pay the bill.

Very truly yours,

ELMER ELLSWORTH CAREY.

BRIEF TALKS

Articles for this department should be practical suggestions that will interest the busy practitioner. They should be short and to the point, and not contain more than one hundred words, but may be much shorter.

[Written for the MEDICAL BRIEF.]

External Treatment of Pneumonia.—The external treatment of pneumonia is fully as important as the internal. Don't smother your patient with poultices and hot applications. One or two ordinary rubber water bags filled with ice water placed upon or against the diseased lung with one garment between the bags and skin. Be particular to have one bag at the back and upper part of the lung where the most involvement usually is. Let him have plenty of cool, stimulating air from out of doors. This treatment relieves the pain in the lung and pleura; reduces the temperature, improves the breathing and hastens the crisis. Do not be afraid to try it. After you have had the bags on your patient half an hour, he would not let you take them off if you wanted to.—James I. Anderson, M. D., Warrensburg, Mo.

[Written for the MEDICAL BRIEF.]

Gastric Membrane in Tuberculosis.—Tuberculosis is often ushered in by a pre-tuberculosis dyspepsia which appears before any signs of disease in the lung can be made out. In other cases the tuberculosis affection occurs in a patient who has long been subject to conditions of the stomach which have, so to speak, prepared the soil for the implantation of the tubercular bacillus. The usual lesion in incipient phthisis is hyperchlorhydria, which usually passes with the progress of the disease through a stage of normal gastric secretion to hypochlorhydria and eventually to chronic gastritis. The prognosis of the lung disease is considerably influenced by the affection of the stomach, which tends, at all stages, to favor growth of the tubercular bacilli. In treatment, the effects of irritating medicines which are sometimes given, such as arsenic, creosote, etc., should be borne in mind, and these remedies, as well as the tonics so frequently given, should be avoided in the first stage, while at a later stage, those medicines may be especially indicated. At this stage, as well as the latter stages, I invariably employ bovinine as a food stimulant and tonic, not only for the improvement of the general nutrition, but also as a sedative to hypersthenic stomach. The bovinine, I find, maintains the strength without upsetting the stomach by virtue of the fact that it gives it rest.

I submit this brief article with the idea of calling attention to what I have found to be one of the first symptoms of a tubercular invasion, and although brief, I trust it may present some few points of interest.—T. J. Biggs, M. D., Stamford, Conn.

[Written for the MEDICAL BRIEF.]

Removal of Plaster Paris Dressings.—Following the suggestion of the late Wm. V. Morgan, of Indianapolis, I have employed extensively Gigli's wire saw for the removal of plaster casts. The simplicity and rapidity of its operation recommend it.

Incorporate a double and twisted No. 20 copper wire under the plaster and over the primary covering of the limb and allow it to extend two inches beyond each open end of the dressing.

When ready to remove, fasten end of saw to looped end of twisted wire and by gentle traction on opposite end of wire the saw will be pulled into position for

operation. You may then proceed as you would in the ordinary use of the saw.—C. A. Butler, M. D., Hohenwald, Tenn.

[Written for the MEDICAL BRIEF.]

Sore Throat.—In your cases of acute tonsillitis and pharyngitis, try the following prescription and get surprising results:

℞ Potass. Chlorat .....1 drachm.
Acid Muriatic (Fortior)... ½ drachm.
Glycerine .....6 drachms.
Tr. Ferri Chlor .....1 drachm.
Aquæ....q. s. ad.....3 ounces.

M. Sig.: Teaspoonful undiluted every three hours until improvement is marked.

In compounding the above, place the powdered potass. chlorat. in a dry bottle of proper size and add the muriatic acid. Cork the bottle tightly. A yellow gas is evolved—chlorine. Now add the glycerin and part of the water. Shake well in order that the chlorine may be absorbed and held in suspension by the glycerin and water. Then add the iron and balance of water and you have complete a splendid preparation for affections of the throat. The free chlorine which is evolved in the mixing of the above is a powerful irritant to the mucous membrane of the nose and throat, so care must be taken not to inhale it.—W. S. Cushman, M. D., Baker, La.

[Written for the MEDICAL BRIEF.]

Tumor.—Some six months ago a lady presented herself in my office for treatment of a large tumor on her neck, size, three by four inches, which I at once diagnosed as goitre.

Patient, female, thirty-five years of age, married ten years; no children; previous health good, though at present slightly anemic. Menstruation regular. No history of goitre in ancestors so far as known. First noticed the tumor three years ago, and had been treated by a number of physicians, but received no benefit. In casting about for treatment; knowing the old remedies promise so little, it occurred to me to try antiphlogistine, which I applied to the tumor as warm as could be borne, one-fourth inch thick. I covered this with absorbent cotton, with oiled silk on the outside, and bandaging completed the dressing. This application was renewed every forty-eight hours for thirty-two days when, to my astonishment, the goitre had entirely disappeared. No other treatment had been given except a teaspoonful of phosphate of soda in a glass of hot water on alternate days. Would like to know through the MEDICAL BRIEF if any of its readers have ever tried this remedy. If not; try it, and you will be astonished, as well as gratified, at the results.—J. W. Harris, M. D., Richmond, Ky.

[Written for the MEDICAL BRIEF.]

Typhoid Fever.—Place the patient in the largest and best suited room, well ventilated and sunny. If tympanitic, empty large bowel with turpentine and water enema. Then clean out with a full dose of calomel followed by a saline. Keep cleaned out by morning doses of one-half to one ounce of castor oil. Accustom the patient to the use of the bed pan at the very beginning. Give daily two to four quarts of water, half of which may be four grains to quart acetozone solution. Keep cold water pack on head and abdomen. Sponge with cool water if temperature rises above 101° F. Give milk every three hours, followed by one drachm of maltopepsin if coarse curds appear in stools. Never give milk until high temperature is reduced by sponging. If milk disagrees, give fresh beef essence or smothered chicken broth. May give plain ice cream daily. When normal temperature is reached, place patient on Phillips' phos. mur. quin. May give them wheat phosphates during the course of the fever. Soft food after ten days normal temperature. If heart fags, use brandy, and if necessary, strychnia, very carefully, beginning with small doses and gradually and almost daily increasing, as may be needed. If heart is very weak, changing position of patient from side to side prevents hypostatic congestion of lungs. Have patient take deep inspirations for one or two minutes three times daily. Judiciously allow company and cheerful reading to patient.

Result.—No intestinal hemorrhage, no delirium, no complications; generally a short run of fever, and an uninterrupted recovery. One hundred cases with but

two deaths. Ninety-three consecutive cases with no death.—Cornelius F. McCarthy, M. D., Batavia, N. Y.

[Written for the MEDICAL BRIEF.]

Hemorrhage.—Was called hurriedly to see Mr. A. Found him suffering great pain and could not void urine; bladder hard and tender. Stated he had been having slight hemorrhage to follow each urination for three years. I found clot had filled bladder, so broke it up and washed it out. Examination with cystoscope revealed ulcer at prostatic urethra. Cauterized ulcer with nitrate of silver, irritated bladder with thirty per cent solution alum iced water, followed with twenty-five per cent solution adrenalin chloride. Used washes twice daily. Gave internally ergot, one drachm; witch hazel, four drachms every four hours. Four months have passed without hemorrhage. —J. W. Mobley, M. D., Allentown, La.

[Written for the MEDICAL BRIEF.]

Adrenalin.—A hypodermic of from five to ten minums of a solution of adrenalin chloride with chlorotone will stimulate a flagging heart. It will control hemorrhage in typhoid. It will check an acute coryza. It will do what a hypodermic of morphine and atropine will do for asthma. It will not cause a habit such as morphine will do. It will make minor surgical operations comparatively bloodless. It will save a life when a patient is nearly exsanguinated from uterine hemorrhage, provided you follow it with a normal saline infusion.—R. D. Sessions, M. D., Natchez, Miss.

[Written for the MEDICAL BRIEF.]

Acute Alcoholism.—In those cases which come to you nervous, shaky and with the history of not eating for several days, give a hypodermic of ergotole, twenty minims, and put him on hourly doses of four drops tr. capsicum and two drops tr. nux vomica, in water. Repeat ergotole every six hours. To those on the verge of delirium tremens, give drachm doses of paraldehyde to produce sleep; while to the more violent cases, add apomorphia to the first hypodermic of ergotole.

In some of the more severe cases, it may be necessary to use the ergot as often as every two hours. Keep the bowels open and feed raw eggs, milk and oysters.—W. H. Sturgis, M. D., Allerton, Mass.

[Written for the MEDICAL BRIEF.]

Puerperal Eclampsia.—Nothing in my practice is more interesting to me than the mothers of our nation. When do they need our sympathy more than during pregnancy and confinement? For the benefit of the busy practitioner, I give here a few suggestions:

I have in mind four cases of puerperal eclampsia, in which the mother and child were both saved. The first thing given was a large dose of chloral hydrate and deod. tr. opii per rectum. Atropine grain one one-hundredth hypodermic. At intervals between spasms, give verat. viride, six drops. When spasms are controlled, proceed to empty uterine cavity. I find the severity of spasms are increased if I interfere before the patient gets under the influence of the medicine. In most cases, the country doctor, or those of small villages, can not give preventive medicine because they are not called and have no warning until 'tis too late for prevention. —W. J. Walters, M. D., Pikeville, Ky.

[Written for the MEDICAL BRIEF.]

Life and Its Struggles.

BY B. M. JACKSON, M. D., LL. B.,

Omaha, Neb.

"Sincerity is an opening of the heart. We find it in very few people, and that which we generally see is nothing but a subtle dissimulation to attract the confidence of others."—*Rochefoucauld.*

History tells us that Jesus Christ made certain truthful statements to his brethren, and for this they nailed him to a cross. It is within the memory of individuals that, in England and in some of our own States, it used to be a legal maxim, "the greater the truth the greater the libel." If we sum it all up, we find that it used to be a crime to tell the truth, and he who dared to utter one, was punished according to the customs prevailing at the times when particular truths were uttered. In our own day, most people would crucify you for telling the truth about them, if the law against violence were not a restraining factor. Have you

ever dared tell a drunkard he is drunk? If not, I should advise you against it, because you may not be able to reach the bedside of a patient, who may have sent for you to come post haste. Man does not like to hear the truth about himself, because he knows it best, and, should you dare tell it, whether within or without his hearing, watch out. Such is human nature, and the most prudent and judicious among us has a weak spot somewhere. True, we are animals, yet animals differ in intelligence. We might be perfectly willing to associate with a dog, but few of us would care to have as a bed companion a cobra or an elephant.

I can not recall the name of an individual who said, "The more he knew man, the better he liked dogs." I mention this in order to show that even the animal man himself would (perhaps only at times) rather associate with a dog than some human beings. Why is this so? What are the reasons for such attitude of man towards his fellow-men? Is it not incumbent upon us to tell the truth, no matter whom it may hurt? How can the human family make any progress at all, if man should suppress the truth? Of course, it will hurt somebody; but who is the somebody that has a greater natural right than yourself? I grant that all men are not equal in physique or intelligence; but, are not all men equal from a political standpoint? They are; and yet they do not enjoy equal privileges. Why? Simply because "the greatest enemy of man is man himself." No one harms us as much as we harm ourselves.

We are ever indifferent to our own welfare, and much more so to that of posterity; hence, we do, and posterity will, suffer the consequences. Of course the fearful struggle for existence is responsible for the sharp lines of demarkation dividing the human family, socially and intellectually; but, what do we do to remove the causes whence arise the fearful struggles? Absolutely nothing. We are not willing to venture lest we find ourselves in a greater predicament. And yet we say, time and again, "Nothing ventured nothing gained." It is obvious, however, that we do not venture, hence we ourselves are responsible for conditions extant. Not only do we not try to remove the causes responsible for the ills and unhappiness of the human family, but we add burdens on those least able to endure them. Ah, man! You forget! You forget! Your memory is poorest of all!

"Vainglorious man, when fluttering wind does blow
In his light winges, is lifted up to skye;
The scorne of knighthood and trew chevalrye,
To thinke, without desert of gentle deed,
And noble worth, to be advanced hye,
Such praise is shame, but honor, virtue's meed,
Doth bear the fayrest flower in honorable seed.'
—SPENSER. '

I said that we add burdens on those of the human family least able to endure them. Let us see if this statement is not borne out by present conditions in our own profession. All medical colleges are making strenuous endeavors to secure as many students as possible. A medical student generally enters the school recommended to him by some physician. Eight out of ten students are comparatively poor. Every student complies with requirements imposed by the school at which he attends, and makes an effort to graduate in due time. The great struggles of many students for a mere existence while attending school, few of us are in a position to know. That cases of well-nigh starvation do exist some of us do know. However, the happy (?) moment arrives, and they receive the much coveted sheepskins; do we allow them to go out into the cold and gloomy world, where they are bound to encounter fearful competition? No. The moment they are on the threshold of their professional careers we add burdens to those which they have endured, and still carry with them into the fields of human endeavor.

Let us take a retrospect in order to ascertain certain facts. A medical college is a corporation chartered by a State for the purpose of teaching the science and art of medicine and surgery, and to confer degrees on those who have complied with the requirements of law. The legal requirements concern preliminary education and time of attendance. Before a medical college may confer the degree, it must ascertain that the particular individual had a preliminary education, and that he attended a certain number of years.

Again, a student is informed by means of a college prospectus that he must pos-

sess credentials concerning his preliminary education before he will be enrolled as a student, and spend a certain number of years before he will be entitled to the degree from the particular school at which he desires to attend. Thus, when the relation of the corporation (medical school) to the student, and *vice versa*, are fully understood by the one and the other.

Suppose that "John Doe" has complied with all requirements, and the medical school exercises the power conferred upon it, hence grants him the degree of M. D., why may he not go out into the world to learn his fate as a physician? Why does he have to go before a Board of Examiners in order to answer a few questions and pay them a fee? Why do we add these burdens to "John Doe," who can not endure them? What are the reasons for this peculiar attitude towards a fellow-being?

Let us examine the alleged reasons. First, that the particular corporation from which "John Doe" graduated, has violated its charter, in that it has enrolled "Richard Roe" as a student, who possessed no preliminary credentials. Must John Doe suffer for the sins of his *alma mater?*

If the profession is truly anxious that all medical schools should comply with the law, it can do one of two things: (1) place the requirements regarding preliminary education into the hands of third parties; or (2) revoke the charter of the corporation known to violate the law. Either of these two actions would be an effective check, whereas compelling "John Doe" to pay a fee and answer a few questions, are burdens to him, and no punishment whatever to his *alma mater;* nor does it prevent the corporation to violate the law every time it sees fit to do so.

Second, it is alleged that some medical schools confer degrees on students "unfit" to cater to the physical ills of the human family, and that "Jim Jones," for instance, would be kept out if he can not answer the questions asked by a Board of Examiners.

Again, I ask, must "John Doe," in every way fit, suffer for the sins of his *alma mater?* And does the Board of Examiners "keep out" "Jim Jones," if he can not answer the few questions? Not at all. If "Jim Jones" is really unfit, he will take two, three, four, or more examinations, and, by cramming into his head a certain number of answers, is bound to pass sometime; that done, and because of his intellectual deficiencies, he becomes ever after an enemy to the profession, whereas, if he had been allowed to enter the fields already strewn with countless dead physicians, who have been mowed down by the bludgeon of competition, he would meet his fate by virtue of the law governing "the survival of the fittest."

Another thing, our medical faculties are supposed to represent "the cream" of the profession, and pretty nearly every teacher is a member of some medical society, which, claims to be anxious that the rank and file shall be "fit" in every way.

Now, "Jim Jones," the "unfit," having been turned out as an M. D., by what form of logic are we justified to conclude that he should be held responsible for his existence in our midst? If the Professors under whose guiding care he parted with his money, and spent many years, have not told him that he is "unfit" to be their colleague, or, rather, have not ascertained that he is "unfit," will a "Board of Examiners" ascertain whether he is fit or unfit by means of a few questions? Impossible, even if each member were a King Solomon.

Only while one is a student can it be ascertained whether he is fit or not. Should one be lucky enough to slip through, "the survival of the fittest" is an inexorable law, and this law is the only one which will play havoc with those who are unfit.

Who are the professional leaders to-day? Those who by their own efforts, and not by reason of legal impositions, have become such. And this notwithstanding the fact that most of them did not have to comply with one-half the legal requirements imposed upon would-be physicians in our day.

Take a glance at the list of names representing the best qualified practitioners, in any State, and ascertain how many of them "proved" their "fitness" before a Board of Examiners. Another thing, the majority of members, of any Board of Examiners, could not answer the questions which some new graduate could ask them.

Gentlemen, what has become of your consciences? Can you not see that your

peculiar attitude towards your medical *confreres*, and intolerance towards nondescripts (action), has brought about a reaction that is threatening your very existence? Can you not see that your foundation is being undermined to a degree uncontemplated by the most pessimistic amongst us? Do you really not know that the present registration laws are driving you into a veritable chaos? Are you not familiar with the history of Ignatius Loyola and his society of Jesus (Jesuits), which gnawed at the very heart of the catholic hierachy, and even "popes" have not been far-sighted enough to contemplate the conditions under which that organization finds itself to-day?

Do you not know that this is an age of tolerance, more or less, and that any action on your part, however mild, is bound to bring about a reaction? What has become of your professional honor? You allow a few short-sighted medical brethren to seduce your reason and manliness, in exchange for which you can expect nothing more than contempt and ridicule at the hands of strangers. Is it not time that you wake up, to parade as men becoming this age? Are you willing to be mere puppets in the hands of a few cunning, selfish and designing individuals, whose main object is to exploit you? Have you really lost your reason, your conscience, and everything that constitutes a man? Awake from your lethargy! "Think right, feel right, be right, live and let live, do the square thing, have a conscience, and use it."

Some of the best qualified among us know that there is a tremendous reaction against the medical profession, hence they, too, have become medical nihilists. You place the responsibility for the existing medical nihilism to everything in creation, but not the true cause. That cause is none other than the unjust medical registration laws. Remove the cause, if you would save your few professional rights. Do not think for a moment that "law" or medico-political "masters" will stem the present reaction. On the contrary, the stricter the law against non-medical practitioners, and the greater the impositions on your medical *confrères*, the stronger will be the reaction. The medical registration laws are bound to meet the fate they justly deserve. Do not wait until the non-medical practitioners, by the aid of thousands of your own brethren, will commence to chop them down, for this will be to your lasting shame. Do it yourselves, and this would bring you credit as befits men. Remember that no law, however unjust towards *confrères* and strict against non-believers, will relieve you of the struggle for existence.

You must forever trust to the inexorable law governing the survival of the fittest. Above all, you profess to be Americans; believe, men, in the fundamental principle of this glorious country, "Equal rights to all and special privileges to none."

The present registration laws are not based on this moral and natural principle. They work only one way, viz.: Special privileges to Board of Examiners and those they may favor, and equal rights to none. As long as the laws remain on the statute books they will keep the medical profession divided, and "a kingdom divided against itself can not stand." Let any of you tell the most ignorant legislator that a physician in one State is not such in any other, and he will laugh at you. Mind you, the legislator, who may have voted for the medical law will wonder whether he was really stupid and acceded to your foolish demands. Do not be afraid that by repealing the medical registration laws "Your State" (whose?) will be overrun. The natural laws of averages and compensation, will take better care of your welfare than any law man can conceive and incorporate in the statutes. Be men. Be gentlemen, above all. The laws do you a world of harm, and if those of you familiar with history should reason, you can not help conclude that they are playing havoc with the practice of medicine and the welfare of the rank and file. The laws compel your own members to become medical nihilists.

Let me say, in conclusion, gentlemen, that, the sooner you will repeal them the better for you. Remember always, "justice consists in doing no injury to men; decency in giving them no offence."

"By heaven, I cannot flatter; I defy
The tongues of soothers; but a braver place
In my heart's love hath no man than yourself;
Nay task me to my word; approve me."

—SHAKESPEARE.

311 Ramge Block.

[Written for the MEDICAL BRIEF.]

The Technic of Diagnosis in Gonorrhea of Women.

BY FREDERICK A. LYONS, A M., M. D.,

Pathologist New York Throat and Nose Hospital; Surgeon to the New York Fire Department; Formerly Lecturer on Chemistry and Adjunct Professor of Materia Medica and Therapeutics in the American Veterinary College; Late Surgeon to the Outdoor Department of Bellevue Hospital, and Attending Surgeon to the French Hospital; Fellow of the Academy of Medicine; Member of the County Society, Medico-Surgical Society, Etc., Etc. New York City.

In medical diagnosis or surgical operations we must be guided by broad principles, yet to be successful in either, it is often most essential not to lose sight of seemingly minute details. I know of no case in which this trite observation is so manifest, and yet so neglected, as in making a diagnosis of gonorrhea in the female. It is a very easy and frequent thing to miss the diagnosis under ordinary circumstances, but when attention is specially directed to the matter it should seem almost inexcusable at the present time to fall into error. To make my meaning plain, the following case, one among many like it, that has come under my observation, will serve as a fair illustration.

Mr. J. B., who had been a patient for some years, and whose urethra I was absolutely certain had for a couple of years been entirely free from any morbid condition, came to consult me for a urethral discharge of about half a day's duration, and which the microscope proved to be an acute gonorrheal urethritis. He asseverated that he had had sexual congress with but one woman; that he had known her for quite some time; that she moved in the wealthier circles of society; was married, but separated from her husband and living on alimony. He was surprised at his condition, but was forced to conclude from the evidence that the origin of it was clear. Having explained to him that the source might be chronic and dated back to legitimate married life, he stated, without ill-feeling, the situation to the woman, and advised her to seek medical counsel. At first she was indignant, but finally consulted her regular medical attendant who, after what he told her was a thorough examination, assured her that she was entirely free from any contagious disease. She was more indignant than before and accused her friend of infidelity. He returned to me rather discomfited and somewhat shaken in confidence, but on my reassurance that if he were telling the exact truth there could be no doubt on the subject, he revisited her and requested her to come with him to my office. She refused to do this, but submitted a list of five of the most noted gynecological specialists in the city and agreed to consult any one of them he might select. He brought this list to me and asked me to aid him in his choice. Among the names placed before me was that of one who had considerable reputation as a pathologist, and I advised him to take the patient to that expert.

The following morning the two proceeded to this gentleman's office, and the patient being placed on the examination table the doctor after a careful inspection and palpation, said he could find no evidence of disease. The gentleman inquired if the doctor could declare the fact positively without microscopical examination of the secretions, and he replied that he would make the examination complete by such investigation. He then took some cotton, wrapped it on an applicator, passed it into the vagina, and smeared this secretion on a couple of glass slides, telling them to come back to-morrow and get the report of a pathologist to whom he would send the slides for examination. The parties discussed the matter again as they left the doctor's office, and he persuaded her to come to consult me on the subject. She came to my office with a female cousin and was on my examination table within an hour of the time of the previous examination. At first inspection there was nothing visible, all parts looking normal, but on placing the finger under the urethra and gently expressing, two specks of mucoid secretion were seen at the orifices of both Skene's tubules and a larger drop in the meatus urethræ. A sterilized platinum wire was taken and with it the secretion was smeared on a couple of cover glasses. These were immediately stained, prepared, placed under

the microscope and viewed with an immersion lens, and were found swarming with a pure culture of unmistakable gonococci. Afterwards smears were made with the secretions taken by the same means from both Bartolin's glands, from the cervix uteri, and the vagina, but the examination of all these latter was entirely negative. I stated to her then and there the result of my examination. The next day she and the gentleman returned to the office of the physician mentioned above and he showed them the report of the pathologist, who found a number of various bacilli and cocci and other things, but was unable to find any gonococci.

The doctor assured them that he would stake his professional reputation on the fact that she was perfectly healthy as far as the genital organs were concerned, and presented his bill for twenty-five dollars.

As I was about leaving the city at the time on a vacation I referred the patient to a trusted colleague, who made the same findings as I myself had done, and who treated her daily until she was entirely cured, which was at the end of a little less than a month. I subsequently examined a number of the slides he had prepared, and traced the decline and disappearance of the malady. A re-examination made by myself at this time confirmed his observations.

I need not comment on the above case. I record it simply because I think it serves to show more strikingly than I could point out in any other way, that to make the diagnosis properly a few indispensable rules of technic must be observed.

Knowledge is one thing, the proper application of it is another. I once called upon a friend whose knowledge of bacteriology is second to that of none in this country. I value his opinion on a bacteriological question more than I would that of anyone else I know. He was examining some slides under the microscope, but remarked that he could not find what he was looking for. To satisfy my curiosity he told me that upon that morning a woman had been sent to him by a medical friend with the request that he make a bacteriological investigation for gonorrhea, as there was strong ground to suspect that the disease existed, but he was unacquainted with the microscopical technic requisite for such examination. This pathologist had taken the vaginal secretion on a swab of cotton and made his smears, and was relating to me his surprise at the negative findings, for he had great confidence in his friend as a clinician.

A very little reflection suffices to convince that such a method of collecting the secretion would, in the large majority of cases, yield an uncertain or negative result. The secretion of the vagina contains a large assortment of bacteria and it is exceedingly rare for the vaginal mucous membrane itself to be attacked by the gonococcus. We know that the disease attacks by predilection surfaces lined by columnar epithelium. Common sense and a little experience dictate that the secretion should be taken direct, and as uncontaminated as possible, from the parts most likely to be affected.

What then is the only reliable method to be pursued? It is exceedingly simple. Have a half dozen platinum wires inserted in glass rod handles the same as ordinarily used in the bacteriological laboratory, and bend a small loop on the end of each. I myself use a double wire, for on the end of this a little loop may be formed and there is no danger of the end being bent to one side or the other and catching in, or scratching the delicate mucous membrane. These wires are heated red hot in the flame of a Bunsen or alcohol lamp on the microscope table, and laid alongside of the cleansed cover glasses on the right hand of the examiner with his other instruments. The parts are carefully wiped off with a piece of sterilized absorbent cotton so as first to get rid of the excess of contaminated secretion, and the little wire loop is then inserted at the point selected, and catches up a little secretion, which is immediately transferred to the cover glass. A fresh wire is to be used for each smear and from one place after the other the mucus or pus is taken. The orifice of each Bartholin gland is sought, the opening of one or both Skene's tubules, the interior of the urethra itself, and any glands in the vestibule that may look suspicious. After the external genitals have been searched the parts are disinfected and the speculum is inserted. The cervix is cleansed of

superabundant mucus and the wire inserted and withdrawn with its drop of adherent secretion, and smeared in the same manner. After this the vagina may be scraped with the wire on any part of its surface, if thought necessary. I usually have a piece of clean paper on different spots of which the names of the different parts are initialed or written, and each cover glass as it is smeared is deposited under its appropriate name. The paper is carried over to the microscope table, the cover glasses stained and mounted, and may be examined immediately or left to be looked over at leisure. After a little practice the whole process can be completed in five minutes. This is the only way, in my judgment, that an opinion worth giving can be formed, and it has astonished me many times that a method so simple in every respect is so constantly neglected.

In view of the fact that an overlooked gonorrhea in a woman is a most enormous evil to her, it would seem incredible that it should so frequently fall of recognition.

50 East Sixty-Third Street.

[Written for the MEDICAL BRIEF.]

Apocynum Cannabinum.

BY FINLEY ELLINGWOOD, M. D.,

Editor and Proprietor *The Chicago Medical Times.*
Chicago.

If the profession ever succeeds in determining that there are specifics in medicine, it will be found that it is through the direct influence of single agents, upon exact conditions of disease. The study that has been made by the physicians of the Eclectic School in the past seventy-five years has determined that there are such specifics, and it remains for the profession at large to freely apply the knowledge that has been thus obtained, to convince the individual members of the profession of the immense amount of truth there is in the observations so made. These observations have been made principally upon the action of indigenous vegetable remedies. The superiority of organic remedies over inorganic remedies is so plainly apparent to those who persist in using the organic remedies that they avoid the inorganic remedies as far as possible.

One of our best specific remedies is apocynum cannabinum. This is the American Indian hemp, and it is specifically a remedy for dropsy due to acute inflammatory causes with the heart primarily at fault or where there is dropsy of serous membranes, or where there is deficient excretion from any of the excretory organs, during dropsy, or when with dropsy there is great thirst, but the ingestion of water causes pain in the stomach, with vomiting. These facts are especially accentuated when there is cardiac dropsy diagnosed, with feeble and irregular pulse, especially if the heart seems to be irritated by the presence of food in the stomach. The agent may be given in the form of a tincture, a fluid extract, the specific medicine or the distilled extract. The latter is preferable and may be given in larger doses, as the taste is not objectionable, and it does not irritate the stomach.

There are but few cases in which the remedy is justifiable in doses sufficiently large to irritate the bowels and cause hydragogue action. Other specific indications are local edema, puffiness of the eyelids, edema of the feet and legs pitting on pressure, edema occurring suddenly from unexplained causes especially when there is general atonicity, with feebleness of the heart. That this agent is a heart remedy of intrinsic value, is just now becoming generally known. These facts I have stated in my writings for nearly twenty years and my observations have been confirmed by those of a large number of practitioners. It is now classed as a heart remedy. It acts in harmony with cactus, which is the superior remedy in its influence upon the nervous control of the heart, and in improving the muscular power of that organ. It strengthens the force and volume of the heart, increases arterial tonicity, improves the functional operations and assists in overcoming dilatation. In cases where the heart is feeble, with tumultuous action, and great irregularity, it will be found serviceable, but where the dropsy depends solely upon heart trouble it should be given in conjunction with such remedies carefully selected as cactus, avena sativa, strych-

nine, hydrastis canadensis, phosphorus and iron.

Some cases of acute hydrocephalus have been benefited by apocynum, especially if the sight of one or both eyes be affected, or if there are irregular muscular movements of one or both of the legs or arms, with suppression of urine. If there are dropsical symptoms present with uterine hemorrhage, accompanied with dysmenorrhea, it is of value. It is indicated in amenorrhea with dropsy, and in those cases of chronic uterine disorder, where with swollen ankles and occasional puffiness of the hands the patient complains of pain in the sciatic nerve, which is diagnosed as sciatica.

This agent will repay any observing physician for the earnest, careful study he may put into its action in the specific lines we have here very briefly suggested.

100 State Street.

[Written for the MEDICAL BRIEF.]

The Outlook for the Beginning Practitioner.

BY ABRAHAM GOLTMAN, M. D., C. M.,

McGill College, Montreal; L. R. C. P. and L. R. C. S., Edinburgh; L. F. P., Glasgow.
New York City.

Ask the young man just completing his school days what he intends to do to make his living. What is the answer in the majority of cases? "I am going to study medicine." A great majority of them are compelled to take up that branch because their parents desire them to do so, whether they are fitted for it or not. Again, young men will not follow in the footsteps of their successful fathers in mercantile business. They want to be doctors, and another idea they have is the unfortunate one, doctors make so much money, and "so easy."

How can a young man driven into the practice of medicine against his desire be a successful man? How can a person, no matter how great his gray matter may be developed, make money quickly, and what right has a poor beginning practitioner to practice medicine in a large city without an income of some sort, or other help? The colleges are turning out graduates like "greased lightning." What becomes of them, for instance, in a large city like New York. They locate any old place, but only temporarily, move and move, and finally give it up, or live a dignified starvation for perhaps five or six years.

Hospitals, dispensaries, associations, and what not, surround the young graduates, and in these days where the specialists "gobble" everything, where do they stand a chance? If a sign was put out anywhere in a large city, wanted one thousand physicians at a salary of fifty dollars a month, for some medical work, I dare say a policeman would be required to keep them in line.

It is a well-known fact that the average local doctor's income is about one thousand dollars a year, but apparently the way he lives seems like five thousand dollars. How many physicians are driving rigs on a practice of three thousand dollars a year, whose practices have dwindled down from six to eight thousand dollars per year, and have to keep up appearances as formerly?

In a large city, people move constantly, and it is difficult to retain patients. The doctor, after having spent his best years as an M. D. is sorry he did not become a business man, and *vice versa*.

When I was studying in London and Edinburgh, conditions were worse, and since I have been practicing ten years, conditions are so that the coming physician will be glad if he can barely make his living the first five years.

In glancing over the medical journals, so much has been written on this subject I have taken the liberty of "putting in my oar," as it were.

How will we remedy the outflow of so many graduates?

First, a course of five years.

Secondly, raise the tuition fees so that people in moderate circumstances will hesitate before adopting such a noble profession. Perhaps this may find a means of checking the large number of young men who intend becoming "doctors."

263 West One Hundred and Twelfth Street.

Enclosed find one dollar, my annual renewal for the MEDICAL BRIEF. I like many features of the BRIEF. I always find something to help.—D. D. JAY, M. D., Pulaski, Iowa.

[Written for the MEDICAL BRIEF.]

A Brief History of Modern Surgery.

BY E. J. KEMPF, M. D.,
Jasper, Ind.

(Continued from page 72.)

Listerism.—In 1881, John Erichsen, an English surgeon, said the following in address to the "International Congress, Section of Surgery," on the subject of treatment of wounds:

"From the earliest dawn of human intelligence the attempt to cure a wound must have suggested itself to man; and yet at the close of the nineteenth century we are still discussing the best methods of doing this and the causes of their failure. There is still difference of opinion and of practice among surgeons, not only as to the comparative advantages of the "open air" method, and that in which all atmospheric contact is guarded against; of the "dry" and of the "moist" system of dressing; as to whether the "antiseptic" method in a modified form suffices, or whether the more elaborate system of local treatment before, during, and after an operation, which has been devised by the skill and worked out by the unwearied labor of Lister, be essential in all cases of operation wound. Not, of course, for its primary union—for this may be obtained by any and every of the methods mentioned. If it be contended that this system is necessary for the safety of the patient, and the due healing of the wound, has it been proved to be equally essential in traumatic lesions of all tissues, of all organs, and of all regions?"

In the same year *The Lancet* says: "We consider Mr. Lister's work as far too great to be narrowed down to be a mere matter of spray and gauze. It is not a mode of dressing wounds that he has introduced, but a surgical revolution that he has accomplished. It is to him above all others that we owe it that septic diseases are now generally held to be avoidable and their occurrence a serious reproach. His work, in fact, has been far greater than the perfecting the form of dressing which bears his name, and he can fairly count among his disciples many whose outward ritual differs *in toto* from his own."

In 1884, Professor Esmarch read a paper on the antiseptic method during the International Medical Congress, in which he laid down certain postulates for the avoidance of suppuration, which are summarized thus: 1, Exact hemostasis; 2, avoidance of cavities in the interior of wounds; 3, drainage; 4, ligature of large and small blood vessels; 5, support of all deep parts by sutures, pressure, etc.; 6, the use of a salt solution during the operation, and the use of a corrosive solution after operating; 7, sterilization of all dressings and bandages; 8, and the use of glass splints.

The Listerian principle, says Professor Gerster, has revolutionized surgery within the last fifteen years—he was speaking then in 1888. "Prevention has become the watchword of modern practice, and it can be said that, by the successful employment of the preventive methods of the present day, surgery has become a conservative branch of the healing art. It is the immortal achievement of Lister to have first attributed to fermentative influences the disturbances of repair, and to have led wound-treatment into a rational, hence successful, direction."

"Modern wound-treatment is based entirely on the old and well-known principles of the preservation of organic substances. Of the several modes of the preservation of organic substances, freezing is the only one that is inapplicable to human surgery. Exsiccation, however, and burning with the actual cautery (roasting); then chemical sterilization by germicides, and the combination of chemical sterilization with exsiccation, contain the essence of aseptic surgery. They insure wounds against decomposition, and are a secure preventive of suppuration."

"The adoption of the Listerian principle has wrought so many incisive changes in practice, has shifted the surgeon's standpoint regarding all the important disciplines of the art in such a radical manner, that most English textbooks of surgery, even those recently published, have become partly or entirely inadequate to the wants of the modern physician and surgeon."

Of the works on modern surgery, in which the principles of Lister are

graphically described, the best is Gerster's "Aseptic and Antiseptic Surgery."

Gynecology.—The physicians under the Ptolemies, the Egyptians, were required to regulate their practice according to certain books, one of which was devoted to diseases peculiar to women. These books were held as sacred, and their authority was thus unquestioned. The destruction of the Alexandrian Library with its 600,000 volumes blotted out the story of what Egypt was, and has left us only to conjecture the contents of this ancient library.

Moses, who was versed in all the learnings of the Egyptians, shows remarkable familiarity with the sexual peculiarities of women, but he treats of them in their physiology, and interests himself in the hygiene of their genitalia rather than in their diseases.

The writings of Hippocrates, written about 450 B. C., are the oldest extant containing anything like a systematic consideration of the diseases of women. His works were authority in the diseases of women and in obstetrics for many centuries, and in the language of Adams, the learned commentator on the works of Hippocrates, "these works furnish the most indubitable proofs that the obstetric art had been cultivated with extraordinary ability at an early period."

Among the Romans there is evidence that the diseases of women received special attention. Their knowledge was, however, derived from the Egyptians and the Greeks, and they added but little to the science. From the writings of Celsus and Galen we learn that during the first century of the Christian era the speculum, rediscovered by Recamier, in 1816, was not unknown; that the vaginal touch was used as a means of diagnosis; and that ulceration of the womb and leucorrhea in its several varieties had been recognized. Two such speculum were found among other surgical instruments in the ruins of Pompeii and Herculaneum. Following this faint glimmer of light from Rome, we have a period of almost absolute darkness for over five hundred years.

Aetius.—At the end of the fifth century, Aetius, a Greek, made compilations, chiefly from the Alexandrian library or collection of medical literature, which compilations happily are still extant, and may be considered relics from the greater Alexandrian library. From the compilations made by Aetius, we note that the uterus and the ovaries, their structure and their functions, are described with a degree of exactness, that goes to prove that the ancients knew physiology of woman, and that they possessed many useful instruments for the ocular examination of the uterus, and sounds for measuring its size. Prevention of conception and the induction of abortion were described, showing that these nefarious practices are not of modern origin, though they may be of modern practice. The displacement of the uterus and their treatment, stenosis, atresia of the vagina, etc., all are described in the compilations made by Aetius.

Paulus of Aegineta came a century later, but his writings on diseases of women are mainly compilations; it is supposed that he used a rude sort of obstetric forceps and also knew of the vaginal speculum, which he used to make ocular examinations of the uterus.

From the time of Paulus Aegineta, on for many centuries, the science of gynecology was a lost art, almost, it might be said, until the year 1816, when Recamier rediscovered the vaginal speculum, and thus laid the foundation of modern scientific gynecology.

Operative gynecology, according to ancient methods, probably never had a greater representative than Velpeau. Alfred Armand Louis Marie Velpeau was born at Breche, France, in 1795. After some medical studies in his native place and in the hospital at Tours, he came to Paris, where, before 1830, he had triumphed six times at the *concour* out of ten essays, and gave private courses in anatomy, surgery, and obstetrics. Velpeau became one of the greatest operative surgeons the world has ever seen. Justly admired by the civilized world, with which his fame as a surgeon and physician was coextensive, when Velpeau died, one of the great medical lights of the age in which he lived was extinguished, and he was lamented by thousands in every land, who were guided by his precept or example. For a great number of years

Velpeau was the chief center of attraction for the medical world in all the departments of medicine, but chiefly in operative surgery.

McDowell.—Ephraim McDowell, who was born in Virginia in 1771, settled in Kentucky, in 1795, at Danville, and fourteen years later performed the first ovariotomy on a Mrs. Crawford, who lived for thirty-two years afterwards. McDowell performed the operation three times in seven years, and then made a report of the cases in the October issue of the *Eclectic Repertory and Analytical Review*, of the year 1816. Before his death he had performed the operation thirteen times, with eight successes.

"We can scarcely comprehend the greatness of this man's mind, and the truly wonderful genius of McDowell, until we stop to consider who he was, what he did, and when and where he did it. A village doctor in the backwoods frontier, surrounded by Indians and the buffalo, almost beyond the bounds of civilization, with no books to refer to, with no precedents to guide, with no one to consult but his own unaided judgment, with no one to share the responsibility if unsuccessful, unaided and alone assumes the responsibility of removing a disease which up to that time had been considered absolutely incurable. Think, for a moment, what would have been the result of failure—a coroner's jury and a verdict of willful murder—which at that time would have been pronounced correct by the entire medical profession throughout the civilized globe. All this he dared and did assume, because his clear intellect had reasoned out his plan of procedure, and his careful dissection had pointed out to him the path to victory. And now every intelligent surgeon in the world is performing the operation as occasion requires, until at the present time (1879), as Dr. Thomas has stated, forty thousand years have been already added to the sum of human life by this one discovery of Dr. Ephraim McDowell."—Dr. Lewis Sayre's speech on McDowell at the dedication of a monument to McDowell's honor at Danville, Ky., on May 14, 1879.

Ovariotomy.—Mr. Lizars was the first to perform the operation of ovariotomy in Great Britain, in 1825, following the example and directions of McDowell's article in the *Review*. Since then the operation of ovariotomy, laparotomy, etc., have been constantly performed, especially since the discovery of anesthetics and of antiseptic surgery.

Fibrous Tumors of the Uterus.—In 1853, Dr. W. L. Atlee read before the American Medical Association a paper on fibrous tumors of the uterus, which at once became a portion of the classic gynecological literature. The paper was wholly based on the author's own experience, and gave important information touching the classification and means of diagnosing these tumors, besides indicating a method of their treatment by enucleation, and gave directions for the internal use of ergot in cases inaccessible to the knife.

In 1856, Dr. I. E. Taylor advocated an operation for recto-vaginal fistula. Extra-uterine pregnancy was treated by operations during the early part of the nineteenth century.

The Father of American Gynecology.—James Marion Sims, born in South Carolina, 1813; graduated at the South Carolina College in 1832; studied medicine at Charleston and Philadelphia; commenced to practice at Montgomery, Alabama, in 1836. About 1845, he established a private hospital in the latter city for the cure of vesico-vaginal fistula, in the treatment of which he used silver-wire sutures, publishing an account of the operation in the *American Journal of the Medical Sciences*, in 1852.

During the year 1852, J. Marion Sims, since styled the "Father of American Gynecology," discovered Sim's speculum, which "has been to diseases of the womb what the printing press is to civilization, what the compass is to the mariner, what steam is to navigation, what the telescope is to astronomy; and grander than the telescope because it was the work of one man."

Sims was the first to operate on vesico-vaginal fistula; and through his labors the first hospital for the treatment of women was established in the City of New York. In 1861, Sims went to Europe, where he performed several surgical operations by invitation. Sims is the author of a standard work on female sur-

gery, besides contributing many essays to the literature of gynecology, which now became a specialty, and more an American specialty.

In 1882, Dr. Baker, of Boston, removed the cervix of the uterus for cancer by the cone-shaped incision.

Later improvements in gynecology are the operations on the uterus, such as excision of the uterus per vagina and hysterectomy through the abdominal incision; the treatment of diseases of the uterus by means of electricity; the improved operation for ovariotomy, and the removal of the diseased appendages of the uterus, under the technique of modern asepsis.

Pessaries have been improved, and remedies for the special treatment of the diseases of the uterus, such as ergot, prunifollum viburnum, etc., have been introduced. Some of the diseases of the uterus and the ovaries are treated at the present day, and also cured by means of electricity. Apostli, of France, is probably the leader in this practice. Among the American physicians, Massey, of Philadelphia, is the authority in treating female diseases by means of electricity. A gynecological practice of rather recent date is currettage of the uterus for disease of the lining membranes of the uterus. Operation for the reposition of a dislocated uterus is also a modern operation, which has been successfully performed.

(To be continued.)

[Written for the MEDICAL BRIEF.]

The Origin of Germs.

BY JOSEPH D. HARRIGAN, M. D.,
New York City.

In the MEDICAL BRIEF for December, under the title of "Disinfection and Disinfectants," appeared an interesting article by Dr. Joseph Priestley, of Lambeth Borough, London, England. The Doctor though, to the writer's way of thinking, does not go quite far enough when he says that "any substance (liquid or gaseous), to be entitled to the name of true disinfectant, must have the power to kill not only bacteria, but also their spores, and any deleterious products formed by them."

It would seem perfectly reasonable to add to this, "as likewise to neutralize the activity of the media in which the bacteria flourish."

This appears to be a matter connected with the study of bacteria in their relation to disease that has been apparently neglected.

While conceding the value of bacteriology and the great advances made in that branch of science, it is well to not lose sight of the chemistry of the *sine qua non* of bacterial existence.

Some things also are taken for granted concerning bacteria that are by no means indisputably proven facts.

Thus, for instance, the statement made by the Doctor that "All infectious diseases are due to the entrance into the body of germs," etc., while being the generally accepted theory upon the subject, is far from being unanimously conceded.

Had the Doctor made the statement that "All infectious diseases are characterized by the presence in the body of germs," etc., no flaw could have been found.

Had he stated that these germs were capable of transmitting diseases to others, it could only be accepted without doubt, if the medium in which they existed were included in the transmission; in which case the possibility of the medium causing the diseases would require to be considered. The phrase "entrance into the body," naturally excites the query, "Whence?"

They must come from somewhere if they enter the body. If they come from a second person, that person must have derived them from a third, and so on to infinity.

But do they come from infinity?

They certainly must have a beginning somewhere, just as there was a beginning for mankind.

And if there is a beginning for them, as sane persons must admit, would it not be a part of wisdom to ascertain if possible whether they could not begin where they are found, instead of coming from some unknown region without, and then entering the body?

Is it not just as easy to consider them as brought into existence *de novo* within the body as it is to consider that sugar is formed there, or uric acid, or the phosphates, or anything else?

Are not spermatozoa formed in the testicles *de novo*? And is there anything more difficult in the formation of bacteria *de novo* as to preclude their development in the body spontaneously than is to be found in the formation of any of the physiological or pathological products of the body that might be mentioned?

Admit their possibility of origin *de novo* in one person, and the possibility of origin in many, as in an epidemic, in similar manner must immediately be apparent.

We hear nothing of the medium introduced into the body, but is it not just as important to consider as the bacterium? Introduce the medium into the body minus the bacterium, would not bacterial development be likely to immediately ensue?

Are we not justified in considering this development perfectly feasible?

Take electro-chemical action as one of the factors in the matter. Can we not see its possibilities in connection with this subject, knowing as we do some of its wonderful achievements in all branches of science?

"Electro-chemical action, continued for weeks, months and years, as was done by that very laborious experimenter, Mr. Crosse, of Broomfield, may produce as secondary results interesting minerals such as quartz, arragonite, malachite. During these experiments in electro-crystallization, Mr. Crosse discovered that remarkable insect, the acarus, which appeared in electrized solutions of sulphate of iron, sulphate of zinc, and sulphate of copper.

"It was supposed that the acari arose from ova floating in the atmosphere, and that they might possibly be hatched by electric action. Mr. Weeks, of Sandwich, in Kent, subsequently repeated the experiments of Crosse by passing electrical currents through silicate of potash in glass receivers over mercury. All possible care was taken to keep out foreign matter. After a constant action of a year, insects appeared, entirely similar to those obtained by Mr. Crosse."

Now, if this signifies anything, it is that there is such a thing as spontaneous generation, notwithstanding that there are some objectors to such a theory, and it is not too much to assert that with the infinitely great variety of electro-chemical processes transpiring throughout all nature, both within and without the human body, one of the by-products of those processes would be bacteria. It is certainly self-evident that the creation is by no means completed.

It is going on all around us now just as it has been going on through ages of time.

The possibilities in the way of future development of new varieties of the lowest orders of plant and animal life *de novo* can only be conjectured.

Taking into account the almost infinite variety of chemical combinations possible in the organo-chemical field we can only say that they are practically limitless in number.

We do not require to go outside of the body in order to discover one of the birthplaces of bacteria.

There is a sufficiency of organo-chemical material there present as well as an abundance of chemical and electro-chemical action progressing as to make possible their production. Now it would seem necessary, if we would discover the prime cause of disease, or rather one of the prime causes of disease in certain cases, to seek for it in the chemical media whether solid, liquid or gaseous, without which the bacteria would have no excuse for their existence. Of course, it goes without saying almost that the causes—purely chemical—existing without the body must have their affinities or antagonists within the body—purely chemical affinities or antagonists—and that as a result of their friendly or unfriendly meeting, disturbances, more or less profound, of molecular harmony, must eventuate.

These disturbances of harmony we know as "disease." To the mind of the writer these processes can be likened to nothing so much as the experimental

"Beard and Rockwell, "Medical and Surgical Electricity," pages 47-48.

processes in electro-chemical crystallization mentioned above, with the difference, however, that whereas, in the one case, it took months for the development of the acarus, owing no doubt to the fact that inorganic chemicals were employed, in the other case the result would be brought about with extreme rapidity, owing to living tissues—organo-chemicals—being involved. Boiled dilute liquor ammoniæ was injected by H. Charlton Bastian into the tissues of the guinea pig with the result that, in a few hours, a remarkable development of bacilli occurred. If this means anything it means that these bacilli sprang into existence *de novo* within the body. They did not come from without and enter the body. They were not imported. They were domestic—purely and simply domestic. And what has been clearly shown as a fact by this experiment, viz.: that bacteria originated by the absorption of a liquid by the tissues, and subsequent subtle process of development, immediately set up, consequent upon the injection of fluid is possible of reduplication by absorption of chemicals in the atmosphere by the lungs, or by the liquids or solids in the stomach.

Thus is it possible for a most infinitesimal amount of an extraordinarily active chemical, as for example, one of the radio-active substances diffused in the atmosphere, and absorbed thence by the system, to set up such chemical and electro-chemical processes, as to interfere with the normal physiological, chemical processes of the body—bacteria resulting as one of their by-products.

668 Lexington Avenue.

[Written for the MEDICAL BRIEF.]

Echifolta Cream.

BY T. J. DANIEL, M. D.,

Magazine, Ark.

The BRIEF came to my office among other journals, and I must say it has improved wonderfully of late, and I like for it to be on my shelf, and always feel like there is something lacking when it is not there. It seems to me that physicians should make known to each other what they have learned, that suffering humanity might be benefited by the combined skill of the profession. Physicians should study medicine for themselves, and the physician who practices medicine for several years and knows nothing only what he has learned from books, has certainly missed his calling. I study the action of remedies for myself. Dr. So-and-So may say that a drug does so and so. Well, when I give the drug, I note the effect myself, and learn from actual experience the action of the remedy.

When echinacea was first introduced to the profession, I began to study the action of the drug for myself, and now after several years' experience I believe I know the action of that remedy, and its place in therapeutics. It is what might be called a general antiseptic, and is indicated in all cases where you want such a remedy. It is just as good locally as it is given internally. In typhoid fever it should be combined with baptisia. My prescription usually reads:

℞ Spec. Tr. Baptisia.....½ drachm.
Spec. Tr. Echifolta.....2 drachms.
Aquæ.....q. s. ad.....4 ounces.
M. Sig.: Teaspoonful every one or two hours.

Echifolta is simply echinacea with the dirt taken out.

There is one thing I want to impress upon the mind of the reader. and that is that echinacea is a specific for carbuncle. Some time since Dr. Harkness, of Belleville, Ark., had a carbuncle on the back of his neck, and he had reached a point that they thought he could not live. They had been treating him the ordinary way the best they could, but he grew worse. Finally Dr. Heck, of Danville, Ark., was called, and he prescribed echinacea alone. Gave it internally and applied it locally. He began to improve at once, and made a rapid recovery.

Last summer I was called to see an old lady who had a carbuncle on her back, almost as large as a saucer. She was very weak. There were several sinuses almost an inch deep. I gave her echinacea internally, and kept absorbent cotton wet with echinacea bound to the place. It stopped it right there; the sinuses filled, and it slicked over as slick as an onion.

I have tried it in many cases of snake bites without a single failure.

After having tested it many times locally as well as internally, I decided to

have an ointment made of it. So I had Prof. Lloyd to make me a lot of ointment which I called, or named, echifolta cream. The first case I had an opportunity to try it on was an old lady who came to my office with the worst sore shin I had ever seen. I took a nice clean cloth, spread echifolta cream on it thoroughly, applied it to the place and bandaged the limb nicely, and told the old lady to report in three or four days. She did, and I was surprised at the improvement. This limb had been treated for months by another physician without any benefit.

The next case was a young man who had hurt his leg some way at school. It inflamed wonderfully, turned dark, and began to slough. He called on my neighbor physician, who put calomel and bismuth on it, but no improvement. The doctor brought him to me. I applied the echifolta cream, and it began to improve at once. I have tested it in many cases, and can truthfully say that in all sores, carbuncles, boils, etc., it will do all a local treatment can do. Especially when sloughing and tissue disintegration occur.

In bed sores, fever sores, chronic ulcers, old tibial ulcers, in chronic glandular induration, scrofulous and syphilitic nodules, echifolta cream has no superior. Of course, in all these cases the echifolta should be given internally.

For caked breast, add spec. tr. phytolacca to the cream, mix thoroughly, spread on cloth, cut a hole for nipple to pass through, and apply constantly, and you will prevent an abscess. There is nothing better.

For hemorrhoids add spec. tr. hamamelis to the cream, mix well, and apply.

For some cases of erysipelas it is a specific. Spread the echifolta cream on a cloth and apply.

For chapped hands, cracked nipples, sore noses—in short, for all sores—it is an excellent remedy.

For chronic sore eyelids, anoint the lids at night.

I would not do without the echifolta cream. Order some, try it, and be convinced.

I fully believe that echifolta cream will prove to be a wonderful blessing for suffering humanity; that many ulcers and sores can be cured by it, that no other known remedy will cure. I am slow to recommend a remedy until I have thoroughly tested it. But I have tested echifolta cream, and know it to be a remedy of great worth. I could fill pages of reports of cases I have treated with it, with the happiest results, but space forbids. Do not forget that, as a rule, echifolta should be given internally while you use the echifolta cream externally.

The dry variety of eczema can be cured with echifolta cream.

It is useless for me to enumerate what all can be cured with this remedy. I use it for all sores, abscesses, etc. Try it, and report your experience.

[Written for the MEDICAL BRIEF.]

Burns.

BY DRS. PENNEBAKER AND TRIPP,
Pleasant Hill, Ky.

Practically there is no difference between a burn and a scald. A burn is an injury resulting from the application of a highly heated substance, viz.; flame or radiant heat; a scald from a liquid heated nearly to or at the boiling point—we might say further, as from steam.

Burns from flames, such as gas, are indicated by extensive scorching of the skin; the hairs are scorched, differing from scalds from water or steam, or by boiling oil or a hot body. Burns from a heated solid will show the parts to be more or less destroyed or even charred. From gunpowder a burn will manifest not only scorching, but embedded particles of unburnt carbon will be found in the skin. Petroleum burns are similar to those from flame, but the parts are blackened as well as scorched.

Sunlight and the reflected rays from snow and other substances on the human body are well understood. The heat, warmth itself is not the cause of the sunburn, *Erythema solare*, but it is due to the violet or ultra-violet rays of light reflected from snow or some other substance. This action of light is noticed by mountain climbers who suffer from "sunburn," the action of sunlight in high altitudes, where the cold is so great as to negative the supposition that the heat

rays could have produced the effect. Persons traveling among the polar ice floes, and those subjected to the electric arc light, where the light is intense and the heat faint, suffer in the same measure. The perfection of the Finsen light has demonstrated the philosophy of this class of burns. When with a rock crystal lens the ultra-violet rays of the light spectrum only were allowed to pass through to the skin severe inflammation was set up. The effects of solar radiation may be arranged in three different groups; heat, light and chemical action. The heat rays are found in the infra-red, red and orange of the spectrum; the yellow and green rays make the strongest impression upon the human retina; while chemical action is chiefly found in the blue, violet and ultra-violet rays. To use this ultra-violet ray in treatment requires the utmost care in cooling the lenses and tube, so intense is heat action. It is known that the wood of the Swiss *chalet* is burned perfectly black from sun rays reflected from snow. In India sunstroke is prevented by the wearing of an orange lining in the hat and clothes.

In the opinion of the speaker, this explanation of the etiology of *Erythema solare*, does not wholly disprove the origin of *Erythema caloricum* as formerly accepted. In *dermatitis calorica* or *ambustionis*, it would appear possible that the heat rays, *per se*, were the exciting cause of the inflammation, after exposure to the hot rays of the sun; though true these effects are most marked when near a body of water, or some such reflecting medium.

A young man, about twenty-two years of age, was engaged in building a raft in one of the northern lakes. For two days he was working with his arms bare, and up to his shoulders in the water for about five hours each day. His right arm was exposed to the direct reflected sunlight, and was extremely red and painful for its whole length. At the elbow joint a spot about the size of a ten-cent piece, and very round, broke down on the third day, and the skin and muscles beneath were destroyed to such an extent that the bone could be seen.

Blackening of the skin never occurs when burns are caused by scalding water; gangrene sometimes develops after scalds, which is not necessarily fatal. A scald from boiling water would, when recent, be indicated by vesication, and a sodden condition of the skin. Blisters most likely occur from steam and scalding fluid, flame or burning clothes, rather than by a highly heated body; a red hot solid disorganizes and chars.

In burns from acids and corrosive agents, appearances very easily lead to their recognition. The eschar from a burn by a mineral acid is soft, and sloughs readily; that by heat, hard and tough.

Stains afford information relative to acids. Some oils burn at 500° F., and produce, by contact with the skin, burns as severe as those caused by molten metal.

Vesication or blisters are usually taken as evidence that the burn was made during life. Such blisters will show an intensely injected and red surface beneath. These vesicles do not contain serum, but liquor sanguinis, which contains fibrine, and therefore coagulates in twenty-four hours if not treated. In a low state of vitality, a redness, or erythematous ring surrounding the blister may not be produced on a living body (Wright).

Shock is serious in extensive and severe burns. In cases not immediately fatal reaction is sure to set in.

A line of redness forms around the burned area, especially when produced by red hot solids. The edges of the skin immediately around the burn is commonly dead white; close to this an environing deep red line is formed. In severe cases the skin is made dry and brittle by the heat, and cracks and fissures open the skin on movement, mostly near the joints. Suppuration generally follows vesication, and in severe cases may occur in two or three days, but often not until later. Gangrene takes place when the vitality of the part burned is destroyed. Its time of occurrence is uncertain, but it sometimes very speedily follows the accident.

In children, insensibility and stupor supervene, owing to sympathy with the brain. These symptoms have been followed by coma and death. It is advisable to avoid the use of, or carefully exhibit opium in such cases, as untoward results are not always understood. Early death may occur from cerebral congestion and

effusion before reaction; death may be immediately fatal from prostration and severe pain. There may be syncope, induced by nervous shock or pain; likewise pulmonary congestion, edema and pleural effusion are frequently encountered, where the respiratory passages are exposed to steam, ignited gas, etc. Death may be due to asphyxia from deprivation of air, or from suffocation from the inhalation of carbon monoxide and carbon dioxide produced by combustion.

To describe a burn graphically is best attained by citing special cases:

A young woman engaged in cleaning out a yard, exposed to flames, ignited her clothing, which burned off; one hour after, her death seemed imminent. Every degree of combustion was present, her eyelids scorched and greatly swollen, her head covered with black burns, her ears reduced seemingly to charcoal, and the surface of the limbs were deprived of epidermis, black in places, yellow in others; where it showed traces of organization it came away in detached flakes gorged with blood. The nails were either torn off or lost. The pain was so horrible that she uttered piercing cries. She experienced fainting and convulsions.

Miss ——— was seen one hour after the explosion of a can of coal oil. Clothing entirely consumed, and she was found sitting on the bed burned thoroughly from head to foot, save her hair, which had been preserved by means of a large sunbonnet. Her person emitted a strong offensive odor of scorched skin. The cuticle on the fingers, toes and some other portions of the person hung like a loose garment. On the palms and backs of the hands, and in other situations, the skin was detached in large pieces, and curled and twisted like the shedding bark of the birch, presenting a white, cooked appearance. The fingers were crooked towards the palms and immovable; the skin on the arms from just below the wrist to just below the shoulders, at which point it was cracked and curled, was baked tight and hard, contracting the forearms. The face was blistered all over, showing the only moisture found on the body. From contraction of the mouth and the skin on the jaws, the tongue could be but slightly protruded. Temperature trifle subnormal; mental condition unimpaired. Intense and unquenchable thirst, constant and violent pain in the stomach, and an oppressive sense of heat were the sole complaints.

A young man fell into a tank of scalding water. Both hands were blistered, and the entire skin from his waist down was blistered and came off. Did not complain of pain at any time until inflammation set in, when it was severe and delirium came on. He recovered.

An artilleryman was standing near a large gun, which burst in firing, causing also an explosion of a temporary powder magazine. He was roasted crisp from head to foot. All the hair on his body and head was consumed, and his features were burned beyond recognition. His eyes were burned out. He was, of course, as black as powder. His skin cracked in many places, and emitted an unpleasant odor. Although he writhed and tossed himself to and fro in horrible contortions, he was not probably sensible of pain, and died in a few hours.

Burns of the Larynx.—Severe inflammation of the larynx involving the submucous areola tissue, may follow the swallowing of any hot liquids, and of corrosive poisons, the inhalation of flame or highly heated air. The pathological condition is generally acute edema. The inhalation of flame or steam is always serious owing to the mental depression and shock accompanying such cases.

Erysipelas is a complication of burns.

The human body is a poor conductor of electricity. The wire of a circuit transmitting enough electricity to light fifteen lamps is handled with impunity if the circuit is not broken. Electrical burns are peculiar; the tissue is completely destroyed, and surrounding parts are anesthetized, and at first there is no local congestion of the surrounding skin. The reparation progress is slow and tedious.

An electrician brought his back in contact with the positive and negative keys of a switch board of the arc line. He was impaled until released by the tissues being burned away in two pieces, three inches in diameter, and down to the bone. The intervening space of ten inches was roasted, and after lapse of two weeks the eschar was lifted out, it weighed two and

one-half pounds. The current had an intensity of four thousand volts. The sloughing and drain of pus was extensive and profuse.

When a living tissue is exposed for a sufficient length of time to X-rays, having considerable power, peculiar changes are effected in the cells, these changes being expressed first by increased cellular activity, and afterwards by cell death. These changes are not produced at once, as when ordinary heat is applied to a part, but appear only after a considerable time has elapsed. Thus, in X-ray burn (*focus-tube dermatitis*), due to the exposure of the skin to too powerful or too prolonged action of the Rœntgen rays, the first signs appear about the third day after. The first evidence is a slight redness of the skin, this deepens and extends, and in a day or two small blebs appear, which break, and from them tissue destruction extends by cell necrosis until large denuded areas may form.

There is no doubt that these rays do produce burns, and there is no doubt as to their frequency. At the present time the number drops to few in estimating from the numbers treated. Only when idiosyncrasy or an extra tender skin is encountered does it unexpectedly occur. Frequent and prolonged exposure to the same area is generally the cause.

The subjective symptoms are here described: First, there is slight tingling, which increases to a burning sensation, with later marked irritation and itching; the skin assumes the sunburn color. It may or may not grow worse. Vesicles may form, leaving a raw, painful surface. The burns are difficult to heal. The deep lesions are osteitis, or a distinct osteoplastic periostitis; there may be violent inflammation of the lungs. Dermatitis, if properly produced, is within certain limits a desirable feature of the X-ray treatment.

Radium, as we know it, is a salt, the chloride, kept in glass tubes not larger than a thick match. This is wrapped with lead for the protection of those who handle it. Lead stops the harmful rays that would otherwise make trouble.

After placing the tube in contact with the skin, and leaving it there for a few minutes, there would be manifest effects therefrom. The results of these contacts, in the person of one of the investigators, are a forearm scarred and reddened from freshly healed sores. Prof. Becquerel, in journeying to London from France, carried in his waistcoat pocket a small tube of radium to be used there in a lecture. A fortnight later the skin under his pocket began to redden and fall away, and finally a deep and painful sore formed, and remained for weeks before healing. Besides heat and light, this strange element gives out constantly three kinds of invisible rays that move with the velocity of light, or thereabouts, and that have separate and well-marked attributes. Luminosity or phosphorescence, an actinic action analogous to the X-ray and ultra-violet ray, and the power of making other bodies radio-active, like themselves, may be mentioned as some of their peculiar features.

(To be continued.)

[Written for the MEDICAL BRIEF.]

A Bad Wound With a Good Recovery.

BY R. R. ANDERSON, M. D.,
Buford, Ohio.

While hunting rabbits in a thicket of underbrush near his home, November 17, 1900, H. E. L. got upon a log so as to have a better view of his surroundings, and while there discharged one chamber of his double barrelled, muzzle loading shotgun at a passing rabbit. Thinking to reload where he was, and while doing so, the breech of the gun slipped off the log, the hammer of the loaded chamber striking the log, discharged the load, the whole passing through the wrist of the right hand. The load entered the front side of the hand near the lower extremity of the ulna, passing through the wrist, carrying with it completely all of the carpal bones of that hand with their attachments, also destroying the external condyle of the ulna, and the upper end of the fourth metacarpal bone, and destroying, of course, all the small nerves and blood vessels in that part of the forearm.

I saw the wound in less than half an hour after the injury, the patient having been brought hurriedly to my office. Mak-

ing a hurried examination, and finding no great amount of hemorrhage, and noticing that the sides of the wrist containing the large blood vessels and nerves was not badly destroyed, and also taking into consideration that he being a man only thirty-three years old and strong, athletic, and of temperate habits, that there certainly was a fair chance to save the hand. This decision was strongly opposed by nearly every spectator present, of whom there were by this time about twenty-five, many speaking loudly against my foolish conclusion.

Paying no attention to their protestations, I sent for my neighbor and friend, Dr. Matthews. who administered chloroform, and in a few minutes the cleansing process was begun.

It took more than an hour to remove all the fragmentary particles, consisting of bone, muscles, tendons, nerves and blood vessels, charred and blackened and torn as they were.

But by the help of my assistant, and some of the bystanders, I had a rather decent looking wound, large enough to admit three fingers at once.

After thoroughly cleansing the wound with hot carbolized water, I dressed it by placing as large a piece of carbolized gauze in the wound as it would admit, then applied a dressing of the same gauze, with a splint on the front and back sides, and covered the whole with a bandage.

I then placed the patient in my own home that I might the better be able to watch him for a few hours.

He rested very little the first night, except when under the influence of a narcotic.

After redressing the wound, the following morning I sent him to his home, visiting him each day, and dressing the wound as at first. The wound healed very nicely, and gave him very little pain after a day or two, and at the end of the second week had so far healed that I was unable to get the smallest piece of gauze in the opening.

There was never at any time during the healing process a particle of pus present, and at the end of the fourth week the wound was completely healed, and the patient could move his fingers considerably, and in a few months could bend the wrist some, and use the hand for many things. On the two succeeding springs he was elected township assessor, and did the writing with that hand.

At the present time he has a hand that is quite useful, except for lifting heavy loads, and although about an inch shorter than its mate, yet is called to act many times oftener.

[Written for the MEDICAL BRIEF.]

Hypertrophy of the Spleen.

BY ALSEY B. YOUNG, M. D.,
Brownsville, Tenn.

This affection, commonly known as ague cake, may be considered as the result of, or attendant upon subacute, or chronic inflammation of the spleen, following protracted cases of intermittent or malarial fever.

The size of the spleen varies greatly in these cases. It may be only slightly enlarged in some cases, while in others it is increased to twice its original size, and may become so enlarged as to fill the greater portion of the abdominal cavity.

In these cases we find the patient suffering with a feeling of weight, tension, and distress, with sharp catching pains in the left side on taking active exercise. He is, therefore, frequently unable to take as much exercise as he would like, or as his health would otherwise permit. When the result of malarial influences we also find the patient decidedly cachectic, the skin sallow, wrinkled and dry, urine variable, sometimes scant, at others abundant, bowels irregular, sometimes constipated, at others diarrhea. The patient may have a good appetite, but the food being imperfectly assimilated, his strength is not increased; the nervous system being more or less disturbed, the patient is restless at night, with at times great depression, difficult breathing, and lowness of spirits. With proper management, we can usually assure the patient of recovery in these cases where the enlargement of the spleen is the result of intermittent or malarial fever, but if the splenic enlargement be the original affection with cachectic symptoms depending on it, the prognosis will be unfavorable.

We have many good remedies for the treatment of hypertrophy of the spleen, but I shall only call attention to that of polymnia uvedalia, for if there is any one thing certain in medicine, it is that polymnia exerts a direct influence upon the spleen, and if it were more generally used, doubtless many operations for removal of the spleen might be averted.

We use the specific medicine polymnia internally in doses of five to twenty drops, and have the abdomen over the spleen thoroughly rubbed with the ointment of uvedalia, which should be well basted in with heat.

A recent case of splenic hypertrophy which came to me for treatment, may prove of interest, and serve to illustrate the action of polymnia uvedalia in these cases.

Mr. McC., aged forty-six; applied to me for treatment, after having suffered for many years from an enormously enlarged spleen, following chills and fever. I found the abdomen protruded to its fullest extent, the spleen filling every available space; and pressed upwards on the thoracic viscera, giving the patient great difficulty in breathing.

I had little hope of the patient's recovery, but decided to try polymnia uvedalia anyway, so I put him on the specific medicine, polymnia internally in ten-drop doses four times a day; the dose to be gradually increased to twenty drops; and applied the uvedalia ointment, warm, locally, and well rubbed in over the spleen, night and morning. Under this treatment, the patient began to improve at once, and at the end of two weeks, when he came for more medicine, he said that he felt better, and was more active than he had been for several years.

We continued the treatment, and in three months the spleen was greatly reduced, and the abdomen had almost assumed its normal size, the patient expressing himself as feeling almost entirely well.

I advised him to keep up the treatment, but he moved away shortly after this, and having lost sight of him, I can not say as to the final result of the case. Still due credit should be given to polymnia uvedalia.

[Written for the MEDICAL BRIEF.]

Pneumonia.

BY P. M'DONALD, M. D.,
Graysen, Ga.

Pneumonia, being a prevalent disease at this season of the year, I will give the readers of the BRIEF my experience and success with this much-talked-of malady.

Will say in the outset, that I am not a practitioner of ists, pathys or isms. I believe in the mode that relieves and cures the sick.

Should I find something to-morrow that on sufficient test proves better than my practice to-day, I should not hesitate to adopt it. It strikes me that if the scientific research of the profession was directed more to the treatment, and not so much to the isolation of some little, harmless germ, the mortality in our large cities would not be on the increase instead of decrease.

Gentlemen, I am a firm believer in the medicinal treatment of pneumonia. In this I mean a cautious, judicial treatment, and I have in my practice a mortality of less than two per cent to back me. Of course, the locality has its weight. I have no doubt that if I lived in some of the larger, crowded cities, where the atmosphere was not laden with oxygen, as it is here, the per cent would be some greater. But I see no need of it being twenty to thirty-five per cent. The main thing I find in pneumonia is to conserve the vital forces, and select the proper remedy. If this is done, your patient will not need over three or four remedies at the most, and generally two will be sufficient.

Treatment.—The first thing I do when called to see a case of pneumonia is to take in the situation thoroughly, the condition of the bed chamber, the ventilation, and the condition of the patient's stomach and bowels, also the full extent of the disease. If, as is sometimes the case with the poorer classes, the room is open, and fresh air has full sway, I direct to keep room closed as much as possible. If room is tight, I regulate ventilation myself. If the patient's stomach will take food, I give milk, beef tea and gruel or egg albumin regularly. I leave off the calomel

purgation entirely, and if a cathartic is absolutely necessary, give a mild saline. Many times I get along nicely without anything in that line.

Am not much of an advocate of external application, except where we have severe pleuritic pains; then I use libradol or antiphlogistine. In cases where both lungs are involved, it is well to use a large jacket to cover the entire chest, merely to protect it, made of absorbent cotton, held in place with bandages covering the entire chest.

The main part of the treatment is the sedative, and this is the cautious part also.

Pulse small and frequent, constriction of throat with burning of fauces, aconite ten drops to four ounces water; teaspoonful every hour. If pulse is medium, add specific tr. veratrum, fifteen drops, to the aconite.

Pulse full and bounding, pyrexia veratrum fifteen drops to four ounces water; teaspoonful every hour.

Cough, with pain in back and shoulders, extending to occiput, abundant sputa, sticta specific tr. ten drops to four ounces water; teaspoonful every hour. Alternate with your sedative.

Oppressed respiration, diminished expectoration, mucous râles, hypersecretion in bronchioles, feebleness and weakness, ipecac fifteen drops to four ounces water; alternate with your sedative.

Gentlemen, this is one of my pet remedies in pneumonia, and I most always find indication enough to put it in.

Cough, scanty expectoration, moist skin, acute pleuritic pains, asclepias tub., one drachm to four ounces water; teaspoonful every hour.

Full and tense pulse, suppressed hacking cough, with pain in side, respiratory movement restricted, bryonia specific tr. ten drops to four ounces water; teaspoonful every hour.

Bright eyes, contracted pupils, flushed face, determination of blood to the brain, gelsemium specific tr. twenty drops to four ounces water; teaspoonful every hour.

Tongue and mucous membrane purplish in color, breath offensive, sordes on teeth and lips, full abdomen, baptisia ten drops to four ounces water; teaspoonful every hour.

Dullness, drowsiness, dilated pupils, dull, heavy, aching pain in head, blueness of face and extremities, impaired capillary circulation, belladonna ten drops to four ounces water; teaspoonful every hour.

I combine any two or three of these drugs, and give every hour, alternating with the sedative.

With this collection of drugs at my command, I can most always select a line of treatment that has proven successful in my hands. Watch your patient very closely, see him at least twice every twenty-four hours. Judicious pursuance of these rules, however simple they may seem, will find your patient convalescing from the fifth to the ninth day in the great majority of cases. Then put your patient on a good tonic for two weeks, and it is all over.

[Written for the MEDICAL BRIEF.]

The Ideal Physician.

BY J. A. COX, A. M., M. D.,

Author "Practical Paragraphs for Patients and Physicians," "Practical Problems, Arithmetic and Algebraic," and joint author "The New Arithmetic."
Wheeling, W. Va.

In all things terrestrial, we discern what we, at least, style imperfection. It is said that the most perfect apple has in it somewhere a perceptible defect. No individual blade of grass, no forest tree, no bird of the air, no beast of the field, is absolutely perfect, in every sense of the word.

Since, in the physical world, we find imperfection everywhere, so, even in the moral and intellectual worlds do we find deviations from the standard of our ideals. No two wild beasts are exactly alike in ferocity. No two domesticated animals are the same in temperament. No two human beings are identical in disposition.

Inasmuch, however, as we can strengthen the body, or cultivate the mind, so, also, can we modify the temperament, and improve the disposition.

The ideal physician, like the ideal patient, the ideal minister, or the ideal

citizen, does not, of course, in the absolute sense of the term, exist.

Great reform movements often fail, simply because well-meaning, though overzealous, theorists imagine that their ideals of excellency are perfectly attainable. They expect so much that the realization in full of their expectations is practically impossible.

Patients often expect too much of their physician. They can not see why he should fail to cure even incurable conditions. They act towards him as though he should prove himself a veritable miracle worker.

Likewise, physicians may, at times, demand too much of their patients. They may expect absolute perfection in their faith, obedience, and demeanor, whereas, human perfection is, as we have said, unattainable. Whilst absolute perfection in religion, in politics, in society, or in business and professional life, is, in the language of the late Senator Ingalls, an "Iridescent dream," still, we should all strive sincerely to reach, as near as possible, the goal of human perfection—the ideal man, or woman.

Let us then endeavor to picture properly the ideal physician. Let us show some of the signs infallible that mark the physician, who approximates the high standard of perfection.

1. The ideal physician is courteous, kind, considerate, and obliging.

He is a friend, true and tried, both to the rich and to the poor. He prescribes alike to the righteous and to the unrighteous. To all classes and conditions of society he is the same.

He so studies human nature that even the humblest, or vilest among men, may enter his presence without fear or trembling.

In a word, the ideal physician is an ideal gentleman.

2. The ideal physician values the friendship of all reputable physicians. He knows no isms, no schools, no creeds.

He does not endeavor to build up a practice by abusing a fellow practitioner. He does not aim to secure patronage by criticizing the line of treatment of a brother physician.

He attends strictly to his own professional work. If he possess real merit, he relies upon that alone to secure to him, in due time, a full measure of success.

If he possess good common sense, he will not meet abuse with abuse, for he will realize the fact that even just censure will but inure to his rival's welfare.

He will know that many a doctor of mediocre ability has been simply slandered into a lucrative practice, while his critics, though, perhaps, men of superior ability, have lapsed into comparative obscurity.

3. The ideal physician is strictly loyal to his patient. He reveals nothing that would, in any way, injure his reputation among men. He would even, if need be, go to prison, rather than, in a court room, disclose a professional secret.

No human frailties are ever commented upon. No shortcomings are ever referred to. No sins of either omission or commission, on the part of the patient, are ever divulged by the truly ideal physician.

4. The ideal physician works unceasingly and unselfishly for the recovery of his patient.

He does not magnify the patient's malady, nor manufacture imaginary ills, in order to secure his patronage. He does not, in any way, retard his restoration in order to extract from him an unnecessary fee. He does not boast of having performed miraculous cures, in order to exploit his own name and fame.

He does not terrify his patient by making grave forecasts as to the final result. On the contrary, he may, indeed, suppress the facts, when a full revelation of the truth would certainly prove disastrous to his patient.

He strives not simply to restore, in the shortest time possible, the body to health and vigor; he aims, moreover, with equal diligence, to guarantee to the sufferer peace and tranquility of mind. His patient's welfare is, indeed, to him of supreme importance.

5. The ideal physician is charitable.

Charity is an attribute of every true physician. In fact, charity is practiced by almost every physician. No other class of professional men so perfectly exhibit in their lives this cardinal virtue.

When friends and kindred fail to comfort and console; when all others have forsaken him, the dying patient can turn

to his physician, assured that in him he has a friend, steadfast, unmovable, always abounding in charity.

Year in and year out, often without the slightest hope of pecuniary recompense, the physician, as an angel of mercy, ministers to those in penury and destitution. To thus minister, he feels it his bounden duty.

The uncharitable doctor will tell us that, for the poor, there is provided a county home and a county physician. But, I ask, is it fair to deprive a man of his choice among physicians simply because he is poor? Is not the humblest creature in the lowliest hut as much entitled to his choice of physicians as the wealthiest citizen in the costliest mansion?

Again, the county physician, as a rule, is paid but a starvation salary, which affords a strong temptation to the doctor to render to the poor but starvation services. The law, I believe, should pay for medical services to the poor, but in the selection of the physician, it should give to the pauper the same privilege vouchsafed to the millionaire.

Limit the price per visit of the physician, if you will. Fix a maximum rate, above which, no physician shall charge. But let the fee be sufficient to justify competition among all reputable practitioners.

Where the law thus fails to do justice either to patient or physician, the ideal physician should respond, remembering that "He that giveth to the poor shall not lack. His horn shall be exalted with honor."

6. The ideal physician possesses business tact. He is a good collector as well as a successful physician. He has, as above shown, abundant charity for the worthy poor who are unable to pay a fee, but he has no sympathy whatever for the professional dead-beat, who can pay, yet who stubbornly refuses to do so.

Before demanding honesty on the part of his patients, the physician should, of course, first prove himself strictly upright in all his dealings. Indeed, the dishonest physician is a disgrace to his profession. He should be shunned in the community as a moral leper unworthy even the slightest respect. He should be completely ostracized by his fellow-practitioners.

On the contrary, the doctor who himself practices the principles of honesty and justice, can, with perfect consistency, demand, in return, suitable compensation for his professional services. To his fees he is entitled. For them he should contend. Not to do so, is to reduce the practice of medicine to the level of quackery. Not to do so, is to lower the level of honesty and integrity, both in the physician and among his clientele.

Indeed, the physician who is careless in making his collections, is usually careless, also, in his prescribing. He who is attentive as to his fees, is, as a rule, attentive, also, to his patients.

In a word, the physician who possesses real merit and skill is neither afraid nor ashamed to demand just recompense for his services. With him, the Scriptural maxim, "The laborer is worthy of his hire," is a living verity.

A straightforward, business-like transaction is not, therefore, at all inconsistent with the most exalted conception of charity and benevolence.

7. The ideal physician is a man whose moral and Christian character is above reproach.

His word should be as good as his bond. His character should be as gold tried in the fire.

He should not essay the role of the preacher, nor should he lecture his patients upon moral or religious topics. He should, however, strive to exemplify in his daily walk, and conversation among men, a character, pure, noble, unselfish, and unsullied. He should cultivate a "conscience void of offense toward God, and toward men."

8. The ideal physician "Looks not upon the wine when it is red," for, as a physician, he knows full well that "At last it biteth like a serpent, and stingeth like an adder."

The use of intoxicants, as a beverage, is bad enough anywhere, but, among physicians, it is the quintessence of folly.

He into whose hands are placed the lives of human beings, should, of all men, possess a steady hand, and an unclouded intellect.

A drunken doctor should be regarded as more than simply an object of pity. He

should be looked upon with fear and distrust.

Even when the doctor is sober, the patient who places his case in the hands of a physician given to the use of intoxicants, takes an awful, and a needless, risk.

9. The ideal physician is a finished scholar.

He understands chemical combinations, chemical reactions, compatibilities and incompatibilities. He is not obliged to copy his prescriptions from books of ready-made formulæ.

He understands mathematical computations. He is able to calculate, for example, how much tincture of aconite should be put in a six-ounce mixture so that, in teaspoonful doses, every dose may contain two drops of the tincture. He is able, in a four-ounce mixture, containing two drachms of ammonium chloride, to tell how many grammes of the salt there are in every dessertspoonful dose.

He understands the Latin which he employs in writing his prescriptions. He is not obliged to commit it to memory for the particular occasion at hand.

The physician who has not, at least, a fair knowledge of Latin, chemistry, and mathematics, is wholly unqualified to safely and successfully practice medicine.

A druggist once told me that a patient brought to his store a prescription calling for powders, each of which was intended to contain ten grains of calomel.

The physician, however, committed the unpardonable blunder of prescribing, instead of ten grains of calomel, ten grains of corrosive sublimate, better known as "bed-bug poison."

Though apprised of the mistake by the druggist, the doctor still contended that he was right, and, furthermore, he refused to be convinced, until reference to his text-book proved to him his error.

Now, calomel in Latin, in medical or scientific terms, as every classical scholar knows, reads: hydrargyri chloridum mite, which, translated into our language, is mild chloride of mercury.

Corrosive sublimate, in Latin, is hydrargyri chloridum corrosivum, which reads in English, corrosive chloride of mercury.

Had the physician known the meaning of the Latin adjectives, mite and corrosivum, the mistake could not have occurred.

Fortunate, indeed, for the patient that the prescription fell into the hands of the druggist himself, instead of, as is so often the case, into the hands of some sixteen-year-old unregistered drug clerk.

Scholarship alone does not, of course, make the successful physician. Other qualifications, as I have shown, are, also, essential. One man may have the necessary scholarship, yet fail as a physician. Another may have but limited education, yet experience a fair measure of success.

The first may lack judgment. He may be faulty in diagnosis. He may be a poor student of human nature.

The second may possess all the other qualifications, except education. He may so manage as not to make fatal mistakes, or his blunders may be corrected by the pharmacist who compounds his prescriptions.

The fact that cultured physicians themselves make mistakes but doubly confirms my position. The most skillful pilot may send his vessel, with all on board, to the bottom of the sea; but because of this fact, would you place at the helm a mind devoid of naval training and experience?

Likewise, if the scientific physician, with all his medical knowledge and acumen, fail to relieve or cure, what can you expect from the man who possesses, at best, but a few crude ideas, totally ignorant of the anatomy of the human body, wholly unversed in the laws of chemical combinations, entirely untutored in the language in which he writes his prescriptions?

Remember, then, the uneducated physician is always a dangerous physician.

He who would sooner trust his case to the uncultured doctor, than to the scholarly physician, certainly places a very low estimate upon the value of human life.

The above are some of the tangible signs that mark the ideal physician. The writer, by no means, pretends to pose as a living illustration of the pure precepts herein enjoined. He does, however, believe in having a high ideal, although he himself may fall far short of attaining

unto it. He does believe that the man who has a low ideal will gradually, though surely, gravitate towards his misplaced standard. He does believe that the man who has a high ideal will, on the contrary, just as surely rise above the mists and fogs of doubt, discouragement, and impending failure, to bask in the clear sunlight of faith, happiness and ultimate success.

Courtesy, fraternity, loyalty, fidelity, charity, honesty, morality, sobriety, scholarship—a splendid combination of graces. Happy, indeed, the physician who but seeks sincerely to measure up to the standard. Thrice happy he who, day by day, with the star of hope as his guide, finds himself ever nearing his coveted goal.

[Written for the MEDICAL BRIEF.]

Treatment of Pneumonia.

BY J. MCCLANAHAN, M. D.,
Westminster, S. C.

The great number of deaths from pneumonia renders it a matter of serious consideration at all times, and especially at this season. In the author's experience, no one disease is more fatal in this climate. The writer's attention was recently called to a statement of a physician in Chicago to the effect that all the treatment in vogue was useless. That the disease was "self-limited," and, therefore, would run its course without being affected by treatment. The same is taught in some of our best (?) and latest text-books.

The writer commenced the practice of medicine in 1867, and has been almost continuously engaged in it since. For the first twenty-five years he treated it in the strictly orthodox manner. Some robust, plethoric cases, when seen early, seemed to be benefited by bleeding. We used active purges (calomel, jalap, etc.). We tried "touching the gums" with mercury, that is, slight salivation. Tartar emetic was given a fair trial. The "supporting" treatment of Bennett, of Edinburgh, was tried, and found slightly better. Then Dr. Norwood, of this State (S. C.), urged the use of his tincture veratrum viride. Many of the profession thought this a great improvement. Blisters to the chest were almost universally used.

Dr. Austin Flint, in his "Practice," published in 1861, expressed doubt as to the benefit of the treatment then in vogue, and suggested a different view of the pathology of the disease. He considered it a general disease, and suggested "lung fever" as a more appropriate name than pneumonia, or pneumonitis. After twenty-five years of disastrous experience in treating this disease in the various ways above mentioned, the writer of this came over to Dr. Flint's conclusion, and adopted a plan having more regard to the general condition of the patient, and less to the local manipulation. In all the cases treated since 1890, those only were included in notes, etc., where there was rusty or bloody expectoration, however clear the diagnosis might appear.

Of course, that excluded many cases of catarrhal (lobular) pneumonia, in which the characteristic sputa is less universal. The results up to that time were not encouraging. About fifteen to twenty-five per cent of fatal cases. After that the percentage of deaths was very low, not exceeding five per cent, and those usually in people who were the subjects of valvular heart lesions. The treatment adopted then, and always carried into effect now, was substantially as follows:

Commence with an active purge, say, to an adult, eight to ten grains calomel, with jalap. Give, at same time, ten grains acetanilid, or A. K.

After one and one-half or two hours, repeat the acetanilid, with quinia sulph.; eight grains of first, with five five to six of quinia. Repeat this every three hours, after second dose, until the temperature falls to 101° F., or less. Then continue often enough to keep the temperature at or below 101° F. Use no irritants to thorax. Iodine or spirits turpentine would probably do neither good nor harm. Blisters are positively injurious, adding to fever and irritation. An oil silk vest, or waxed cloth, may be slightly beneficial.

Sound theory is against cold compresses, etc., over inflamed lung. They not only depress the patient, and cause harmful shock, but, by driving blood from the cutaneous surface, increase engorgement of internal viscera. If pulse is at all

weak, or too frequent, use tincture digitalis. The writer's experience has been in its favor as against strychnia. Tincture veratrum is too depressing to the heart.

The above is a condensed treatment that has proven so far almost universally successful. Keep the bowels loose. In vigorous subjects, free purgation; the derivative effect of free purgation is much greater, also its depleting effect, than any blister, however large the surface covered. Keep the temperature down. A patient with pneumonia (especially croupous) whose temperature is 101° F., or less, is inside the danger line. Expectorants are useless. Digitalis does good in catarrhal cases, aside from its tonic influence on heart. It is in those cases (catarrhal) where the best effects will follow the careful use of tincture veratrum.

Out of many that could be copied from note book, or memory, but one case will be taken to show effect of the treatment above described:

J. M., age thirty-five, weight two hundred and twenty-five pounds, male, white, family history good. Previous health good. Writer had just discharged wife and daughter, who had had croupous (lobar) pneumonia.

February 20, eight A. M., had a chill at midnight the night before. In bed, decubitus on back. Bowels constipated, continuous "hacking" cough. Basin by bedside contained not less than half pint of bloody mucus. Skin dry and burning hot. Complains of "aching all over." Excruciating headache. Pulse, one hundred and twenty. Respirations, thirty-five. Temperature, 106° F., under tongue. All the physical signs of pneumonia present. Dullness on percussion complete over entire lower lobe of right lung, and half of upper lobe. To relieve the headache, etc., he was given at once calomel and jalap, each ten grains, and ten grains antikamnia.

The attendant then prepared a powder of ten grains acetanilid, and eight grains quinia sulp.; gave it to the man's wife, with instructions to give it at 9.30 o'clock (one and one-half hours from time antikamnia was taken. Then turned away to put up some doses containing eight grains acetanilid and five grains quinia. Hearing some motion at the man's bed, turned round just in time to see him wash down the dose to be given one and one-half hours later. He had on board ten grains antikamnia and ten grains acetanilid. Being somewhat alarmed, on account of amount taken, the writer waited to see results, and do anything necessary, if harm was done. At expiration of one and one-half hours, the patient was examined. Pulse, one hundred. Respiration, thirty-five. Temperature, 101½° F. Perspiration profuse. It—the sweat—was pouring from every pore. He was in bed with his clothes on, and on a quilt laid on the sheets. His clothes were saturated, and the quilt wet through. Directions were written ordering the eight-grain powders every three to four hours, *pro re nata*, to be held up in case of blueness of lips, etc.

Called next day at same hour; found he had slept well. Expectoration greatly lessened, and less blood in it. Pulse, one hundred. Respiration, twenty-six. Temperature, 100½° F.; rather free perspiration. Purgative acted well. Headache left the day before, just after taking his overdose. No aching of back and limbs.

Continued the acetanilid and quinia every six hours. Calomel and jalap at bedtime. Tincture digitalis, and tincture nux vomica, each ten drops every eight hours. Called next day. He was sitting up. Pulse, ninety. Respirations, twenty-two. Temperature, 99½° F. Treatment continued, but the acetanilid and quinia only three times a day. Discharged.

Three days after last visit, in riding through his neighborhood, saw him sitting on a friend's piazza, two miles from his home.

His case was evidently aborted, as can often be done when the patient is seen within the first forty-eight hours of the commencement.

Will add that no bad effect on the heart has ever been observed from the use of acetanilid or antikamnia, or any of those preparations. Have used many pounds of them.

Enclosed find postal money order for one dollar for 1905. Want more of the BRIEF. Suits me.—J. D. MOTT, M. D., Crider, Ky.

[Written for the MEDICAL BRIEF.]

The Treatment of Typhoid Fever.

BY W. T. DAVIS, M. D.,
Harrodsburg, Ky.

Typhoid fever is a specific affection, but for that acute fibrile disease we have no specific remedy. In the first place we should be positive that we have a case of typhoid fever to treat; then we should closely guard the symptoms as they are developed and be prepared to combat them with the proper remedies and with the proper understanding of the case. I have, in practicing medicine for fifty years, learned enough in regard to the treatment of typhoid fever to know that the main point in its management is to depress the temperature at once, or as soon as possible. The treatment to that end is the most important. My opinion is, after the success that I have experienced in treating many cases, the most suitable antipyretics to depress the temperature are hydrotherapy, quinia and digitalis. The method of hydrotherapy consists in immersion in water at a certain temperature, the wet pack and the local abstraction of heat by special appliances. I hold to be preferable the method of gradual reduction of heat. I place my patient in water at 96° F., then by the addition of cold water the temperature of the bath is brought down to 95° F. The duration in the bath should not exceed ten or fifteen minutes; the thermometer should constantly be in position to observe the effect. The temperature of the patient requiring the bath is at any point above 101° F. (axilla) and the repetition of the bath must be determined by the effect, every two, four or six hours, at night as well as in the day. The baths should be kept up as long as they do good. If the patient becomes depressed or is made faint some stimulant should be given before, during or subsequent to the bath, according to the result. Vin portense is the most suitable stimulant in my opinion, in such cases.

The wet pack may be used with equal effect if the bath is impracticable. A sheet is wrung out of cold water, the patient is thoroughly wrapped in it and then covered up with a blanket for a few minutes, when the process is renewed if necessary. The bed should be protected by a gum cloth. There are several contraindications to the use of cold baths, hemorrhage from the intestines, great weakness of the heart's action and coldness of surface with high internal fever.

Quinine is next to hydrotherapy, and probably a superior remedy, for reducing abnormal temperature of the body. Notwithstanding good results have been obtained from baths, it is more than likely that quinine will always be preferred by many practitioners of medicine, because of the readiness with which it may be brought to bear on the production of heat. If I were forced to adopt one or the other in the treatment of typhoid fever—cold water or quinine—I certainly should choose the latter. Antipyretic doses from ten to twenty grains of quinine must be given to an adult patient every four or six hours to produce the desired effect; a sufficient dose will cause a decline of several degrees of heat lasting several hours; less effect than this certainly will not justify the employment of the remedy. According to my judgment ten grains of quinine should be given to an adult patient laboring under typhoid fever every four or six hours until a decided reduction of temperature takes place, then suspend its use until the temperature begins to rise again. The power of quinine to reduce abnormal heat may be aided by digitalis when the latter is not inadequate, or a few doses of digitalis may be given every four hours before the quinine is commenced. If the stomach is irritable the digitalis should be withheld; it should also be withheld if the action of the heart is feeble.

The best results are always obtained, according to my judgment, by using all the antipyretics at the same time whenever the nature of the case demands them. The influence of baths, wet packs or sponging with cold water, quinia and digitalis should never be lost sight of in the treatment of typhoid fever, if we wish to keep under control the abnormal heat. If the temperature of the patient is kept within proper limits there will be less need for attention to complications; nevertheless, the attending physician should always be prepared to obviate any tendency whatever to complications. Stimulants should not be used in the

treatment of typhoid fever cases, unless the condition of the patient absolutely calls for them. Morphia and belladonna are the remedies in wakefulness and restlessness in doses to suit the demands, but at the same time they should be given with great caution. Chloral hydrate must be very cautiously given, if at all, owing to the weakness of the heart's muscles. If there is much thirst, the tongue is dry and the abdomen distended with gas, turpentine, both internally and externally, is highly useful. Muriatic acid, properly given, will frequently act well under the same circumstances. If there is much tenderness of the abdomen turpentine and warm applications should be applied as long as they do good. If the bowels act too freely keep them in check with a little opium or Dover's powder, bismuth and carbolic acid properly combined will sometimes answer a good purpose to keep the bowels in check when they act too much; so will the tincture opii act well in some cases.

If hemorrhage occurs from the intestines, their movements must be suspended by opium, combined with alum, tannin or plumbi acetas, to check the flow of blood. The tincture chloride of iron will answer occasionally, also cold applications to the bowels will sometimes answer a good purpose to check hemorrhage. If perforation occurs morphia, hypodermically, is the remedy (if there is any). Absolute rest must be maintained and stimulants may be cautiously given. If the headache of typhoid fever patient is severe, which is frequently the case for the first few days, give the bromide of potas. from ten to thirty grains according to the age of the patient, at bed-time; it checks restlessness and procures quietude and sleep, The lungs may become seriously involved, there may be considerable engorgement; if so, the bromide of potassium is an excellent agent to prevent further clotting and will answer wonderfully in relieving the lungs of the engorgement that may already exist; it helps to retain the fluidity of the blood, and it is one of the best nervines. At the same time we should not by any means neglect our other remedies, especially the quinine and external applications, such as mustard and lard combined, so that it will not irritate the cuticle too much. It should be gently rubbed all over the chest once every twenty-four hours, or oftener if necessary, until the lungs are relieved.

If the above treatment of the lungs is a failure, do not stand back to give the patient one or two doses of quinia sul., five grains; Dover's powder, five grains; hydrarg. subchlo., two grains, with ten drops of the fluid extract of digitalis at bed-time (if an adult, and children in proportion to age).

The hair on a typhoid fever patient's head should be cut close, and cold applications to the scalp should be kept up as long as the fever lasts. If the patient's bowels are locked up at any time, they should be opened with sulphate magnesia. If there is any tendency to scrofula, tincture iodine is beneficial in the treatment. Stimulants should be used when the condition of the patient requires them; light wines for the first twelve or fourteen days, whisky and brandy the remainder of the time, if the condition of the patient calls for them. They are best given and received by the stomach in egg-nog.

The alimentary treatment of all typhoid fever patients should be closely guarded from the commencement of the attack. Nourishing, easily digested aliment should be given without fail at regular intervals; every four hours it should be offered the patient. Nurses should attend closely to that particular duty; if they wait to be called on for food or drink, they may wait in vain, for that is not often the case. While food should be given every four hours, it should be in suitable quantities. Buttermilk, sweet milk, mutton and chicken broths, and half-boiled eggs, may be given in sufficient quantities from the commencement of the disease, to sustain the strength of the patient. Aliment and mild stimulants are the main remedies after the fever leaves. Broken-down alcoholics should be given alcoholic stimulants, more or less, from the start to the finish.

Berlin Klin. Wochenschrift, December 5, 1904, speaks of Rosenbach as one of the greatest thinkers of the representatives of scientific medicine of the present time, and of his eminent mental work.

See ad., page 53.

[Written for the MEDICAL BRIEF.]

Jaborandi.

BY M. M. FOY, M. D.,
New York City.

Jaborandi is one of the remedies which does not receive the consideration it merits, because of the unreliable nature of the average preparation of this drug, and because its alkaloid, pilocarpine, does not by any means represent the full virtues of the plant. I think if physicians will investigate the claims made for jaborandi by various therapeutics, and use Lloyd's medicine exclusively while doing so, they will make a decided gain in knowledge and power.

Jaborandi has a very favorable influence in rheumatism, especially acute articular rheumatism, but all the local congestions and inflammations of rheumatic origin come within its sphere, such as affections of the eye, throat, ear, etc.

Jaborandi may be used to good effect in essential fevers, as also in those associated with some inflammatory process, such as pneumonia, erysipelas, etc.

In mumps, in excessive action of the salivary glands, in excessive sweating from weakness, in threatened mastitis, or to increase the flow of milk, jaborandi is of the greatest value.

The drug has its uses in obstetrics. Where the os fails to dilate properly, and the tissues are hot and dry, full doses of jaborandi, as much as half a drachm, will soon bring about improvement. In whooping cough, when everything else fails, try jaborandi.

But it is in rheumatism that I would lay most emphasis on the value of jaborandi. Whenever the joints or other parts are swollen and painful as a result of rheumatism, jaborandi will afford relief. It is of considerable benefit in muscular pain and spasm. Lumbago is quite amenable to this remedy. As rheumatism in all of its forms is a great *bete noir* to the profession, its members will do well to thoroughly "try out" the virtues of jaborandi.

The effect produced by jaborandi is largely regulated by the dose. For instance, where there is great arterial excitement and suppression of the secretions a materially larger dose will be required than where it is administered to relieve excessive sweating or ptyalism. In other words, the drug must be used intelligently to get the best results in each case.

Jaborandi is of value, used internally, and as an external application, to thicken the hair and increase its growth.

In dry catarrh of the naso-pharynx, or middle ear, jaborandi, if used persistently, will often bring about considerable improvement. The hearing faculty, which becomes dulled by the progress of this disease, is sometimes distinctly benefited.

Do not make the mistake, in employing this remedy, of supposing that pilocarpine will serve your purpose equally well, for if you do you will be disappointed. This is one of the cases where it is necessary to use a fluid preparation containing all the medical properties of the plant. The average preparation of commerce is also unreliable. I use that prepared by Lloyd Bros., because I always get satisfaction from it.

[Written for the MEDICAL BRIEF.]

Typhoid Fever, or What?

BY R. S. WARD, M. D.,
Dickeys Mills, Ky.

I was called to see Miss D., aged fourteen years, on September 22, 1904, nine days after her illness began, and found her temperature 105 1-10° F. in the morning, 106° F. in the evening, with coated tongue, edges red, some meteorism; pulse, one hundred and ten; respiration rapid; bowels moving five or six times per day; mind clear, and so continued to the end; never any delirium at any time. There was some deafness, a bronchial cough, and some eruption on chest. There was no mental disturbance; pupils normal all the way through. Despite all I could do, temperature oscillated between 105° and 106° F. for twenty days, when it declined to 102½° F., but would go back to 106° F. again. Tongue cleaned off on the fifteenth day of her illness, and remained clean and moist till the end. About the fortieth day of her illness, sores appeared on her lower limbs (not bed sores), though one bed sore did ap-

pear on her back, though I took every precaution to avoid it. Later on, her right leg became paralyzed.

Treatment to Reduce Temperature.—Gave sponge baths, from ten to twenty per day, alternating cold and hot, with alcohol baths. Gave aconitine to the limit. Gave bis. subgallate, with menthol, thymol, eucalyptus, zomakyne, carbolic acid, etc.

Quinine was given to lessen the oxygen carrying power of the red blood corpuscles. She was fanned constantly night and day. Her skin was like an oiled paper; never perspired till late in the disease, which continued seventy-three days. Her diet was chiefly milk, sour and sweet, with lemons and fruit juices, and soups.

I also used veratrum, chlorate of potash, and acetozone. Of course, these remedies were used one after another, as they were tried and failed. The heart was sustained with digitalis, strophanthus, glonoin and strychnine. She had hard nervous chills, which were easily controlled with hypodermics of morphine.

I never worked harder to relieve a case in my life. I early asked for a consultation, which was declined. Towards the close I insisted upon counsel, which was granted. Dr. M. being called, remarked: "I do not see how you have kept her alive so long."

The sweet, patient, lovely child, died on the seventy-third day of her illness.

I would like very much to have this case commented on. If this was not typhoid fever, what was it? I have treated typhoid fever ever since I began practice, but never saw anything like this case.

I belong to the BRIEF family.

[Written for the MEDICAL BRIEF.]

Artificial Feeding of Infants.

BY C. A. BUTTON, M. D.,

Holland, N. Y.

It is a fact that usually too little attention is given to diseases of children by the medical student, and that many physicians find themselves "at sea" when it comes to the modification of milk for infant feeding, where artificial feeding is necessary.

It has been found that infants require percentage composition varying with age and development as follows:

Fats	3	%	to	4	%
Sugar	6	%	to	7	%
Proteids	1	%	to	2	%
Salts	.20%		to	.20%	
Water	89.80%		to	86.80%	

Cow's milk contains a less proportion of fats and sugar, and a greater proportion of proteids and salts than mother's milk, and is, also, lacking in alkalinity.

The proteids and salts may be reduced by adding water. This still further reduces the fats, which are normally too low in cow's milk, and sufficient cream must be used to bring it to the percentage of mother's milk. The sugar necessary for a baby to thrive on is also deficient, and must be reinforced with sugar of milk. To make it more alkaline, and to neutralize any free acid present, lime water is added. Based upon a chemical analysis of each, the following tables will modify average cow's milk to the same constituency of average mother's milk, and will meet the average infant's power of digestion.

First and second day, give only:

℞ Sugar of Milk	½	ounce.
Water	8	ounces.

M. Sig.: Warm to blood heat and give three or four teaspoonfuls every two hours when awake.

Third to seventh day:

℞ Cream	½	ounce.
Milk	3	ounces.
Water	9	ounces.
Lime Water	¾	ounce.
Sugar of Milk	¾	ounce.

M. Sig.: Give one and one-quarter ounces every two hours during the day and two feedings at night.

Second and third weeks:

℞ Cream	¾	ounce.
Milk	5	ounces.
Water	12	ounces.
Lime Water	1	ounce.
Sugar of Milk	1	ounce.

M. Sig.: Give two ounces every two hours during the day and two feedings at night.

Fourth and fifth weeks:

℞ Cream	1	ounce.
Milk	8	ounces.
Water	16	ounces.
Lime Water	1½	ounces.
Sugar of Milk	1½	ounces.

M. Sig.: Give three ounces every two hours during the day and two feedings at night.

Sixth week to third month:

℞ Cream	1¼	ounces.
Milk	12	ounces.
Water	20	ounces.
Lime Water	2	ounces.
Sugar of Milk	2	ounces.

M. Sig.: Begin with three and one-half ounces and gradually increase to four ounces every two and one-half hours during the day and one feeding at night.

Third and fourth months:

℞ Cream	2	ounces.
Milk	16	ounces.
Water	20	ounces.
Lime Water	2	ounces.
Sugar of Milk	2½	ounces.

M. Sig.: Begin with four ounces and gradually increase to five ounces every three hours during the day and one feeding at night.

Fifth, sixth, seventh and eighth months:

℞ Cream	2½	ounces.
Milk	18	ounces.
Water	20	ounces.
Lime Water	2	ounces.
Sugar of Milk	2½	ounces.

M. Sig.: Begin with five ounces and increase to seven ounces every three hours during day and no feeding at night.

Ninth, tenth, eleventh and twelfth months:

℞ Cream	3	ounces.
Milk	20	ounces.
Water	20	ounces.
Lime Water	2	ounces.
Sugar of Milk	2½	ounces.

M. Sig.: Begin with seven ounces and increase to nine ounces every three and one-half hours during the day and no feeding at night.

After the twelfth month increase the milk and decrease the water and other ingredients gradually, until at eighteen months entire milk may be given.

Sufficient food for the day should be prepared and sterilized, by placing in a container of water, and keeping at a scalding heat, or 165° to 170° F. for fifteen or twenty minutes. Then set in a cooler, and enough for a feeding warmed to blood heat, when needed. If any is left from a feeding, throw it out, and use fresh each time. The amount of lime-water used in the foregoing tables is of the officinal strength, made by slaking four ounces lime, adding water to make eight pints, and shaking well together. Pour into bottles, let settle, and turn off the clear liquid as wanted. The writer of this is author of a book entitled, "Mother and Daughter," which discusses the subject more fully than space will admit in this article. The book also discusses the physical life of woman from childhood past the menopause. It is intended for the laity, not as a home doctor but to tell them what to do in emergencies, and induce them to seek medical aid where they now often neglect it.

The intention is to increase the physician's practice through its use, and it would be a help to any physician recommending it to his patients. Young physicians would also find some information not usually given in text books or lectures, and in convenient form for reference.

The tables herein given are for the average child, and average cow's milk. They will have to be varied as either varies from the average. Colic, curds in the stools, and constipation is usually due to an excess of proteids. They can be reduced by adding more water. Colic, with eructation of gas, and green acid stools, is quite likely to be due to an excess of sugar.

Regurgitation, with diarrhea, may be due to too much fats, in which case reduce the cream. Regurgitation alone may occur on account of giving too much at a feeding, but if sour it is probably due to indigestion, and both fats and proteids may need reducing, the stools and other symptoms being considered in order to conclude which is most in excess.

Two hours is usually often enough to feed the child, the first two months, and as it grows older and takes more at a time, the intervals can be gradually lengthened. If it cries between feedings, water may be given. Many a little one suffers from thirst because it can not ask for water. Often in cases of puny infants, with feeble digestion, the feedings will have to be more often, and a less quantity given at a time.

For instance, an infant of six weeks just came under observation of the writer. It had been improperly fed, and was vomiting nearly everything given it. The nurse had a copy of "Mother and Daughter," and modified the milk to suit its power of digestion, giving two or three teaspoonfuls about every forty minutes, gradually increasing the amount, and lengthening the intervals until reaching the proper amount and time for its weight and age.

The child should never be given any solid food, or any food containing starch, until five or six months old. Ptyalin, for the digestion of starchy foods, is not secreted until about that age. At six months a little finely mashed potato, or a little bread in the modified milk may be given.

While the foregoing tables will meet most cases, the physician will often find his skill taxed to make the changes necessary by reason of milk or infants not being up to the standard.

[Written for the MEDICAL BRIEF.]

A Simple Cure for Backache.

BY D. W. WELCH, M. D.,
Mt. Vernon. Ind,

Backache is a very painful and frequent symptom of several diseases. Whether due to lumbago, grippe or malaria, the pain is frequently excruciating, and demands relief. When due to malaria, grippe, etc., it may be readily relieved by the medication appropriate to these diseases—quinine, acetanilid comp., etc. But in the more persistent cases, as in lumbago, while waiting to find the cause, and a remedy—not always easy to do—give temporary relief, and very often complete cure, by the local application of chloroform.

Fold an ordinary towel four thicknesses, and over one-half of the towel thus folded sprinkle from four to six drachms of chloroform, and apply smoothly to the patient's back. The slight burning sensation which it occasions, rarely unpleasant in itself, will last about thirty minutes. The pain will not, usually, last so long. If, however, it persists, repeat the application.

This is a cheap, speedy, cleanly, safe and sure, temporary relief for this most annoying symptom, and frequently the relief is permanent. The agonizing backache of parturition can be relieved in the same way. Try it in one of these labor cases, and you will be gratified with the results. So will your patient.

Colic, griping, etc., can be quickly relieved by the same application to the abdomen.

The writer once lay fourteen weeks flat on his back, unable to turn over or to be turned, suffering excruciating agony with his back. I had hypodermic of morphine and inhalations of chloroform until my bowels were obstinately constipated, my mouth and throat as dry as dust, appetite utterly destroyed, and my back blistered with various liniments. I would have given a house and farm at that time for the knowledge contained in this brief paragraph.

I enclose one dollar for the BRIEF. Would not be without it.—E. N. WILHELM, M. D., Raubsville, Pa.

[Written for the MEDICAL BRIEF.]

Treatment of Typhoid Fever.

BY W. C. KEEN, M. D.,
Burkeville, Ky.

I usually give small doses of mild chloride of mercury every one, two or three days, through the entire course of the disease, combined with subnitrate of bismuth and Dover's powder. I also give subnitrate of bismuth in large dose with small doses of quinine, and if the bowels are active, add Dover's powder to each dose, every four, six or eight hours.

I prefer to give this in elm mucilage, as I believe the mucilage has a good effect on the mucous membrane of the alimentary canal. When the patient is well under the influence of the quinine, I usually discontinue it, or give it at longer intervals. I also give teaspoonful doses of an emulsion made of spts. turpentine six drachms, powdered acacia one ounce, granulated sugar one ounce, thoroughly mixed, and add peppermint water q. s. eight ounces. Of this emulsion, I usually give one teaspoonful every six, eight or ten hours. I keep a close watch on the urinary organs, and if the turpentine is producing any irritation, I either discontinue or give at longer intervals.

If I use any of the antipyretics on account of high temperature, I always give phenacetine, though when I can have the temperature reduced with baths, I much prefer to do so. In the later part of the case, when the symptoms demand it, I frequently give strychnine or whisky, or both.

When there is marked swelling and tympanitis, I frequently apply, locally, an application composed of equal parts of sheep's tallow, spirits turpentine and beeswax, melted, and applied on a cloth with a thin piece of gauze over this to protect the skin.

I know that turpentine with the profession is almost a thing of the past, though as I have been practicing twenty-five years, and where I have been able to carry out the above treatment, I have only lost one patient from hemorrhage of the bowels.

Start the new year right. Renew your subscription.

Inquiry Department.

Pyrosis.

QUESTION:—About two years ago the patient, a traveling man, was seized, while at a hotel and just finishing a hearty meal, with an attack of gastric trouble. The doctor whom he consulted pronounced it a bad case of waterbrash, an over-secretion of gastric fluids. Since then has consulted a number of doctors and tried various methods of treatment without results.

Patient is compelled to expectorate constantly and occasionally "blubbers" in talking, due to the over-action of the salivary glands. Lips are always sore, can not get them to heal up. Is constantly meeting ladies in the course of his business and at times can hardly carry on conversation owing to the accumulation of saliva.

Can you give any assistance in handling this case?

Ohio. J. S. S., M. D.

ANSWER:—We suggest that you try:

℞ Tinct. Belladonnæ .....2½ drachms.
Acid. Sulph. Arom.....3 drachms.
Ext. Hydrastis Can. Fl. q. s.2 ounces.

M. Sig.: Twenty to forty drops after meals.

Arsenite of copper in minute doses, or nitrate of silver, one-sixth to one-fourth grain-doses an hour before meals, is of great benefit in many of these cases.

As a mouth wash and gargle, use:

℞ Potassii Chlorat .....1 drachm.
Ext. Rhus Glabræ Fl.....4 drachms.
Aq. Dest....q. s.....8 ounces.

M. Sig.: Add a portion of this to an equal portion of water and use every two hours.

Meat should predominate in the diet—that is, albuminoids. Starchy and saccharine substances do not agree well. The cereals may be taken in moderation. If the patient is a heavy smoker, the amount of tobacco he uses should be reduced materially. Alcoholic beverages, tea and coffee are also bad for one in this condition. Eat slowly and chew the food well. Do not eat when tired; rest first.—ED.

St. Vitus' Dance.

QUESTION:—Will you kindly advise me concerning the treatment of St. Vitus' dance in the following case? Man, aged thirty, is not very strong and is a heavy smoker.

N. J. E. E. R., M. D.

ANSWER:—If the chorea is of toxic origin due to the abuse of tobacco, the treatment will be somewhat different from that applicable to the ordinary typical case occurring sporadically.

The indications are to reduce the consumption of tobacco as rapidly as possible, and increase elimination. While the system is saturated with the depressing influences of the poisonous nicotine, treatment addressed to the disease will probably have little effect.

We would suggest hot baths, systematic rest, a nutritious and easily digested dietary, and medicinally equal parts of neurilla and compound tincture of cinchona in dessertspoonful doses four times daily.

If the blood pressure is very low, you may find fluid extract of ergot in fifteen-drop doses of benefit, or dilute nitrohydrochloric acid in ten or fifteen-drop doses in water.—ED.

Cod-Liver Oil Preparations.

QUESTION:—Please name a preparation of cod-liver oil containing the largest amount of iron, and oblige.

New York. JAMES GUNNING, M. D.

ANSWER:—Manufacturers of these preparations do not usually state the exact percentage of the constituent elements in the formula, so we have no way of arriving at the information desired by you. There are a number of these preparations in the market, most of them excellent, and all of them containing some iron. The manufacturer in each case will be glad to furnish you literature and information concerning his preparation.—ED.

Neglected Cold.

QUESTION:—Young man, aged twenty-two years, contracted a severe cold on the chest some weeks ago, which was neglected. As a consequence has become very weak and feeble, lost thirty pounds. Raises a little blood at every paroxysm of coughing. No fever. Little appetite. Sleeps well at night. Fears consumption, as he lost an uncle with this disease. Some infiltration of the lungs. What treatment would you recommend for him?

Ohio. T. C., M. D.

ANSWER:—Would give him teaspoonful doses of Fellows' syrup of the hypophosphites, also extract of malt. To aid in clearing up the lung, three-grain doses of ammonium iodide, with twenty drops each fluid extract of yerba santa and wild cherry bark. It is possible the blood comes from the throat.

Feed him nourishing, digestible and appetizing food in small quantities. Encourage him freely. The absence of fever, of circulatory excitement, the fact that he sleeps well are all good signs. With tonic treatment, good nutrition and encouragement, he should soon regain his normal condition.

If the cough is very annoying, deep inhalations of medicated air are beneficial —equal parts menthol, eucalyptol and listerine, dropped on gauze, is a satisfactory combination.—ED.

Choreiform Movements.

QUESTION:—What treatment would you advise for the following case?

Married lady, aged forty-four years, has been troubled for past three years with nervous attacks when excited or worried, affecting her frequently as follows: Feels as though all the blood rushed to the head, can not prevent the head from shaking (vertically). The more she tries to control the head the worse it shakes. Can not sit in any public place or meeting without these sensations. Sometimes if hand is pressed on spine near the atlas and axis vertebræ, shaking is controlled to some extent. Has consulted a number of physicians, but none of them have been able to do anything for her. What can you do?

Paterson, N. J. SUBSCRIBER.

ANSWER:—We recommend that you flush the bowels with epsom salts twice a week. That you regulate her diet, which should be simple and easily digested. That you urge upon her the necessity of controlling the emotions as far as possible, and avoiding everything likely to create confusion, haste, worry, strain of any sort. Put her on the following combination: Fluid extract of ergot and tincture cimicifuga, of each fifteen drops; neurilla, one drachm; one dose, to be repeated three times daily.

Would advise some sort of support to the back of the neck, a splint, strapping or bandaging. Whatever device you may employ, it should be comfortable.—ED.

Testicular Neuralgia.

QUESTION:—Man, aged twenty-seven years, married, is troubled with occasional nocturnal emissions which completely incapacitate him for attending to his business for several days thereafter on account of pain and weakness.

On these occasions he wakes up the next morning with a dull, heavy, aching pain in the right testicle—why the right always I am unable to explain—continuing until it assumes a neuralgic form, which runs along the course of the cord, posterior to the right kidney. It will continue excruciatingly until relieved by medical aid. Intercourse is followed by no such after-effects.

Can, and will, any kind medical brother, who has been a close observer of human nature, give me, through the columns of the BRIEF, a correct diagnosis of this case? I have tried hot local applications and liniments with only comparatively palliative effect. The internal treatment consisted of tinct. capsicum, tinct. opium, spts. camphor, spts. ether. comp., papine, bromidia, and as a last resort to a hypodermic injection of a grain of morphine. On several occasions it was necessary to repeat the hypodermic.

Pa. A. B., M. D.

ANSWER:—A few drops of guaiacol applied over the seat of pain is useful in alleviating pain. Also a paste of powpered opium applied over the testicle at the onset will often completely control it.

We suggest that you put this patient on sanmetto, adding three to five drops of Lloyd's macrotys to each teaspoonful of sanmetto, and give this dose three times daily for some time. You will find that this medication has a very invigorating effect on the whole reproductive system. The testicle should be supported, not allowed to drag.—ED.

Neurasthenia.

QUESTION:—Man, aged forty-five years, complains of numbness and tingling sensations in the limbs, gets angry on slight provocation, suffers from headache a good deal. Sleep is restless and broken. Digestion not so good. Hesitates in his speech and forgets what he starts out to do. Is sleepy during the day and wide awake when night comes. He fears he will lose his mind or have a stroke of paralysis. This patient is a business man, ambitious and a hard worker. Has no bad habits, except of late has gotten in the way of taking a drink of whisky to brace him up.

Give diagnosis and treatment and oblige.

Mo. PRACTITIONER.

ANSWER:—The time has come for this man to take a vacation. Let him leave worry and responsibility behind him, and get clean out of the ruts. Why did you not send him to St. Louis? The World's Fair would have made a new man out of him. He should not use his mind in any serious way, and get as much open-air diversion as possible. He should occupy his time in a very different manner from his usual life. He will not need much medicine if he has this change, and without it medicine will not do him much

good, but you can give him a teaspoonful of celerina every three hours to good advantage. It will benefit the numb sensations, headaches, etc., and is a very fine remedy in neurasthenia. Would also suggest the use of a saline laxative two or three times a week.—ED.

Chorea.

QUESTION:—Would like some suggestions in the treatment of a case of chorea. Patient a girl of ten years. Heredity good. Several brothers and sisters, all in good health. Child has been removed from school at my suggestion. Have tried arsenic in ascending doses and salicylate of soda, but without any good results to speak of. Her general health seems to be good. Good color and appetite, digestion fair, but no control over muscular system.

Ill. T. S. G., M. D.

ANSWER:—Remove all sources of reflex irritation, if any are present, such as worms, solitary vice, hyper-acid urine, etc., and regulate diet. For calming the irritable nerve centers, you will find neurilla invaluable, alone, in teaspoonful doses every three hours, or in combination with ergot and cimicifuga, fifteen drops each, of a good fluid extract. An iron tonic is sometimes indicated, in which case, Tilden's hydrocyanate of iron tablets, one three times daily, gives every satisfaction.

If the muscular jerkings are so pronounced as to interfere with sleep, give a hot bath just before retiring, and a small dose of bromidia—twenty to thirty drops, which may be repeated as indicated.

These cases require to be managed with great kindness and wisdom. The good effects of treatment are counteracted to a great extent by improper care. Isolation and systematic rest are essential with many. All strain is to be avoided. —ED.

Rheumatism.

QUESTION:—Some two weeks ago my wife suddenly experienced a prickling sensation, a numbness in the end of third finger of right hand. The finger is bent as far as the first joint and has become gradually inflamed, including the first and second joints, with occasional pains extending through the muscles on the under side of the arm up to the elbow. The finger is easily straightened, but she has no power to open it. Sometimes there are severe pains through the first joint of the finger. Patient has no knowledge of having received any injury to the finger.

Kindly diagnose this case and give remedy for same, and oblige.

Ohio. F. B. G., M. D.

ANSWER:—The trouble seems to be of rheumatic or gouty origin. We would suggest that you put her on the following:

℞ Lloyd's Macrotys .....4 drachms.
Celerina....q. s. ad.....8 ounces.

M. Sig.: One to two teaspoonfuls four times daily.

If any other preparation of macrotys is used the dose should be increased to ten or fifteen drops to the teaspoonful of celerina.

Apply a strip of Benson's capscine plaster six inches long, beginning at the nape of neck and extending down.

Give a saline laxative twice a week, and avoid indigestible articles of food, and give the right hand and arm entire rest. —ED.

Irritable Heart.

QUESTION:—Lady, aged forty years, suffers from alarming attacks of palpitation, associated with hysterical symptoms. These spells are increasing in frequency. Heretofore hypodermics of morphia and atropia have been used to quiet her. What treatment would you advise to reduce the susceptibility to attacks? Her heart is apparently sound. Nutrition fair. Constipation alternating with diarrhea, thirst and a large flow of pale urine, which, however, contains no albumen nor sugar. Any suggestion will be appreciated in this case.

Md. R. P., M. D.

ANSWER:—Would give her fifteen to thirty drops of fluid extract rhus aromatica, with one or two cactina pillets, four times a day. Regulate her diet, and give an occasional saline laxative. If she is overworked, lighten her duties, and prescribe more rest, especially lying down for short intervals. If she leads an idle life, insist on regular outdoor exercise, and get her to adopt a hobby of some sort. She should also strive in every way for emotional control.

Are the reproductive organs in health? The increase of this trouble may be due to the approaching climacteric. Neurilla is of much value in irritable states of the nerve centers. The flushing of the bowels with a saline is often efficacious in averting a nerve storm of toxic origin; therefore, we suggest a purgative dose of magnesium citrate at the onset of each attack.—ED.

Hirsuties.

QUESTION:—Can you give me a remedy which will remove superfluous hair, roots and all? A lady patient of mine has a tuft of long, coarse black hair growing just under the chin on the right side. The ordinary depilatory will remove the hair, but it soon returns.

Mich. T. L., M. D.

ANSWER:—We suggest that you try the ethylate of soda, a fifty per cent solution in absolute alcohol. First clip the hairs short, protect the adjacent tissues with cerate ointment, and apply the soda solution to the roots with a glass rod. The application is followed by a crust, which should be left alone for a couple of weeks or more. The roots are usually destroyed by this process. If not, it can be repeated as soon as the skin will bear it.

To prevent pain use a five per cent solution of cocaine before making the application. Ethylate of soda can also be used to remove moles, small birthmarks, powder stains if not too extensive, etc.—ED.

Nervines.

QUESTION:—Do you know of a good nervine, one which does not constipate the bowels? What about neurilla? Would you advise this preparation for a case in whom the tendons of the legs draw and jerk?

Texas. MRS. L. M. L., M. D.

ANSWER:—Neurilla is unexcelled as a calmative. If the trouble to which you refer is of a purely nervous character, undoubtedly neurilla will prove beneficial. If, however, there are inflammatory deposits, adhesions, etc., the hot air bath, massage, Swedish movements, electricity, alterative medication, are indicated. Neurilla is free from any tendency to produce constipation. If you employ it in this case, we suggest that you combine it with chionia, two parts neurilla to one part of chionia, and give teaspoonful of the mixture after meals.—ED.

Information Wanted.

QUESTION:—Kindly oblige me with the following information, if at your command:

1. What medicines are used to dissolve cataract?
2. What medicines are used by the "advertiser" in the supposed cure of varicose veins?

KURTZ ADDY, M. D.

Perryopolis, Pa.

ANSWER:—1. Cineraria maritima has been used for this purpose, we believe. We have had no experience with it, and do not know much about it. Thiosinamine is credibly reported to have given good results. The dose for internal administration is about one grain, for hypodermic injection proportionately less. Perhaps some of our readers can give you more detailed information on this subject.

2. We do not know.—ED.

Floating Kidneys.

QUESTION:—A Pennsylvania correspondent desires to hear from those who know anything about the beneficial effects of operation to anchor floating kidneys and whether double floating kidney is as rare as commonly supposed. The patient, a woman, has suffered from uterine trouble and hip-joint disease. Is she a suitable subject for operation? Same has been advised by two very able physicians after considerable hesitation. The patient is a professional nurse.

What is the cause of these displacements of the kidney?

The advice of "Old Doc" is especially solicited in this case.

S. E. S., M. D.

[Written for the MEDICAL BRIEF.]

Oil of Hyssop.

C. R. KING, M. D.,
Atlanta, Ga.

Will the Editor and readers of the BRIEF kindly tell me of the oil of hyssop, its uses, the dose and result of their experience with it. I am interested in its therapeutic value from what little I have read of it.

I enclose one dollar for my annual subscription to the MEDICAL BRIEF. I want to express my appreciation, not alone of the BRIEF, but of your part of it as an individual, of the able articles from your pen, teaching individualism without fear, prejudice, malice, etc. I want to endorse and to congratulate you on what you have to say to us doctors. It will bring freedom, liberty, enjoyment, and success in life to us, and is most helpful to our patrons and mankind in general. It means "peace on earth, good-will (demonstrated) to men."—W. H. FEURT, M. D., Proctorville, Ohio.

CHARLES D. F. PHILLIPS,
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Editorial.

The Only Danger.

Self-reliance is the vital essence of a republican form of government. The only danger under which this country labors of losing free government—government of individuals as first formed, is from organizations. All organizations, except those for purely social purposes, *all organizations which try to control the beliefs and practices, to rule the conduct of individuals, are conspiracies against every one of their members.* Each such member is expected to surrender his mental liberty to the rule of the majority, and if he does so, he ceases to be a man in the true sense of the term.

If you would be a man, not a flunkey, do not put on the degrading livery of mental slavery which organizations keep for their members. Nothing can console you for the pain and shame which the starvation and atrophy of your faculties must cause you. Do not be afraid to be called a nonconformist. The term has lost its stigma and become the greatest compliment any man can receive. The self-reliant man is always a nonconformist, and he is a man that people trust and believe in. The man who is true, who has merit, must have his own opinions, must speak his own mind, and live his own life. People know this, and judge accordingly. . . .

A man is not like a newspaper, of which thousands may be printed from one press. We want no stereotyped machine-made men, echoes of an organization policy. We want the honest convictions of men who do their own thinking, even if they contradict themselves from time to time. We can not always see truth from the same angle, and no honest man need fear to be charged with inconsistency, that bugbear of small minds.

The organization in all cases pauperizes its members. They must not rely upon themselves, but take a rule of life from the organization with which to measure and meet every situation which may arise. Thought and action must be deferred until the authorities can be consulted. Why study and experiment, why search into the

mysteries of things, why rack the brain for appropriate methods, new ideas and ingenious devices if the rule of majorities or the dictation of authority only can decide what may be done?

Self-reliance is the salt of life which seasons all things and makes them good. *The man who has been trained to self-reliance is the only free man, the only happy man, the only successful man.* Whatever reverses or misfortunes may overtake him he has the fortitude to meet them, the strength and habit of mind to get on his feet and recover lost ground.

America will never suffer so long as her sons are accustomed to look to themselves for a solution of all life's difficulties and problems. But more and more the organization is striving to get hold of the individual, to crush out independence of thought and action, and make all conform to one standard. If the organizations succeed, there will be a new era of the Dark Ages. All progress, all amelioration of man's condition has been accomplished by the individual. Generations of the organized tyranny of Church and State led at last to a government formed for individuals, guaranteeing individual rights. *And now the organization is seeking in various forms to re-establish its tyranny.*

Be not afraid nor ashamed to be called a nonconformist. It simply means that you have mind enough to do your own thinking, and courage enough to act as you think right. If you are not a weak and fearful man, why should you be ridiculed or terrorized into giving up your independence because others think they know what you should do better than you can? Why should you be either flattered or coerced into yielding to their selfish presumption?

No intelligent layman would want a doctor who was afraid to rely upon himself. Why should the doctor, why should any man call another master? Whom would Shakespeare call master? Stand by your principles, defend your rights, whatever comes of it. Nothing else in this world can bring you satisfaction in life.

Great men, through some accident, may be found in organizations, *but they will never be controlled by organization rules.*

Why the "Brief" Attracts Attention.

Think a moment. If the MEDICAL BRIEF were an obscure, unknown journal, nothing would be said about it. It is because it is the best known and most successful of all medical journals that it attracts so much attention. Naturally this attention is of two kinds. Success makes enemies as well as friends. There are always envious and jealous people, those who love to criticize and find fault. Many people find that they can bring themselves into prominence, *and shine in a reflected light* by attacking and criticizing those *more prosperous and successful than themselves.*

A competitor who is comparatively unknown can advertise himself widely if he can only succeed in drawing *his big rival* into a controversy, because he gets the advantage of the other man's wider reputation and higher standing.

In an affair of this kind the obscure, little-known man has all to gain and nothing to lose. The successful man, on the contrary, has all to lose and nothing to gain in stooping to a wordy war.

There is no necessity for the BRIEF to say that it is or is not thus and so. Let every man examine a copy and see for himself what it is. An intelligent man is certainly able to judge for himself as to whether the things said about it are true or false. Whatever may be said of the Editor, no one has ever said that he is not a good business man, and what good business man would give a competitor free advertising?

The BRIEF is all the time increasing in circulation and advertising matter. There is no necessity why it should go out of the way to propitiate the doctor who can not trust his own judgment in the selection of a medical journal. The BRIEF desires to stand upon a purely merit basis, to have the doctor choose it because it is of practical use to him. We make a good journal and we know it. We ascribe our great and growing success to the fact that we have deserved it, and that being the case there is no need for any pretense or professions in the matter.

It is gratuitous trying to explain misstatements. The truth is absolutely certain to transpire. People always find out in the end whether what is said is true or false.

Wood Alcohol.

Some seven or eight years ago, cheap, deodorized wood alcohol was placed on the market. This article is untaxed, and sells at fifty cents per gallon, while grain alcohol is heavily taxed, and retails at $2.60 per gallon. Under these circumstances, and notwithstanding the well-established poisonous character of wood alcohol, it is employed to a considerable extent as a substitute for alcohol made from grain.

Wood alcohol is used not only in the arts and in preparations for external use, but to adulterate and cheapen alcoholic beverages, by unscrupulous persons in the preparation of commercial medicines—substitutes and imitations—in various food products such as flavoring essences, etc.

Unfortunately it is not easy to detect the deodorized wood spirit until too late to prevent its poisonous action. Eye specialists are agreed that many cases of blindness are due to the unwitting use of wood alcohol, either in liquors, medicines, or by the use of liniments.

Poisoning from wood alcohol may manifest itself acutely, or its effects may be delayed. The coma which follows its use continues for a much longer time. It appears to act more slowly through a sort of cumulative action, and the resulting intoxication is more prolonged. Wood alcohol is not completely oxidized in the system as is grain alcohol; its use results in the formation of the poisonous formic acid, which is very slowly eliminated.

Researches into the subject reveal that fully two hundred deaths have been caused by the use of preparations containing wood alcohol, and an equal number of persons have been made blind by the same agency.

We must also bear in mind that many cases of fatality from wood alcohol doubtless go unrecorded, owing to the fact that physicians in general are unfamiliar with the symptoms of poisoning by wood spirit.

In diagnosing such a case, it is well to remember that the force of the poison is spent on the eye. When the patient escapes death, he is almost certain to go blind.

In view of the poisonous nature of wood alcohol, the difficulty of detecting it, its cheapness, and the consequent temptation to unscrupulous persons to substitute it for grain alcohol in the manufacture of various commercial preparations of food and medicine, it will be well for the doctor to caution his patient as to the dangers of buying cheap flavoring extracts or spirituous beverages, and the importance of patronizing only druggists whose reputations have never been stained by the accusation of substitution. He will also do well to remember, himself, the importance of prescribing only standard ethpharmal preparations. Another thing. When ordering an alcoholic rub, a liniment, hair tonic, or other preparation, in which alcohol is to be used, take the trouble to specify grain alcohol as an extra precaution.

As a matter of public policy, the excessive tax on grain alcohol should be reduced to a nominal figure, or the tax on wood alcohol should be increased to same as that on grain alcohol, thus diminishing the temptation constantly before the ignorant and mercenary to play with danger.

The Late Dr. C. D. F. Phillips.

It is with much regret that we record the death, at the age of seventy-four, of one of the most valued of our British contributors to the MEDICAL BRIEF, Dr. Charles Douglas Fergusson Phillips, of London. Dr. Phillips graduated in 1852, and was M. D. (Aber.); LL. D. (Edin.); LL. D. (Aber.); F. R. C. S. Ed.; F. R. S. Ed.; M. R. C. P. (Lond.); Honorary Fellow of the Medico-Chirurgical College of Philadelphia, and Honorary Fellow of the Academy of Science of the United States of America. He was an authority on the pharmacological action of drugs, and was for some years Lecturer on Materia Medica and Therapeutics at the Westminster Hospital, London, subsequently serving as Examiner in these subjects, first in the University of Edinburgh, then in the University of Glasgow, and quite recently in the University of Aberdeen. He was the author of a well-known work in three volumes on "Materia Medica and Therapeutics," the third edition of the first volume of which appeared only a few months ago.

He was most successful in practice, and in one year received in fees £21,000, or

over $100,000. He was a man of wide sympathies, and had many friends. Only a short time before his death he was invited to represent the Universities of Glasgow and Aberdeen in the British Parliament, an honor which, however, he felt compelled to decline. He took a keen interest in the success of the MEDICAL BRIEF, to which he contributed many papers, amongst the most notable of which were "Oxygen, Ozone and Compressed Air" (1902), "The Pharmacological Action of Mercury" (1903), "Lime," and "Barium" (1903).

Dr. Phillips, at the time of his death, had in preparation several articles for the MEDICAL BRIEF, selections from which we hope to publish as opportunity serves.

Gall Stones.

Regulate diet with special avoidance of made dishes and excess of sweets. Keep bowels soluble and free of means of salines and cholagogues. Use hot air baths. Recommend abundance of fresh air exercise. Let alcoholics alone. Give pure olive oil in teaspoonful doses three times daily on an empty stomach.

Let the patient drink Vichy to the exclusion of other table waters.

The succinate of sodium is well spoken of in this connection. We have had no personal experience with it.

The American Doctor.

It is a well-known fact that the people of continental Europe do not understand the American doctor. How should they, when they have always existed in the shadow of authority? They can not comprehend why he will not be led, why he will not follow along in the procession after the manner of the European doctor. It is a great puzzle to them.

It might also be said to puzzle some other people why the American doctor will not be led around by the nose. To their way of thinking, it is extremely irregular, unconventional, and in bad taste, for him to insist upon preserving his independence in the way he does.

There is something peculiar about the American, anyway. Did you ever think about it? He likes to shave himself and to wait on himself; does not care to own things in common with other people, and by the same token keeps his hands off their belongings; likes to mind his own business, and has a partiality for speaking the truth.

He has the same objection to taking his opinions second-hand that he would to wearing someone else's clothing.

Of course, in the labor unions, where the men are not so intelligent, and where there is a large percentage of foreigners, it is easier to control them by playing on their prejudices and dogged devotion to an idea, but the average American doctor is an educated, liberal and broad-minded man, capable of doing his own thinking in all matters, political, religious and medical. As an intelligent man, able to think and reason clearly, he makes a poor follower. As a man carrying heavy responsibilities, the independent stand is best for him. He can see this as well as the next one. An organization which compels him to give up the right to think and act independently has nothing to offer him. There is no other calling in which energy and ability, acting independently, can reap such large rewards proportionately, both financial and professional.

The medical politician has the ambition without the ability. His best chance lies in organizing and controlling the men of merit who are better off without him. On the continent of Europe, where men have been trained to an ages-long servile deference to authority, organization is the rule. Court endorsement of a fad may be sufficient to make it binding on the profession. The individual has little chance to be heard. Individual observation and experience, which constitute the main elements of progress, do not thrive in the atmosphere of organizations. Medicine on the continent has degenerated into speculation and fads.

Here, in America, where independence of thought and action still exists, where there are medical journals whose pages are open to any man who has something to say, medicine is making progress, and the future is bright. These conditions are a great compliment, not only to the sturdy character of the American doctor, but to the wisdom and foresight of the founders of the American Republic, to Washington, Jefferson, and others of our great men,

who believed that an intelligent man could be trusted to preserve the liberty bequeathed to him.

The spirit of our forefathers still dwells in us. The spirit of 76 is by no means dead. When the iron hand of organization, which had its inception in the days of brigandage, would lay itself on our liberties, it leaps up, as strong to resist tyranny as it ever was. None but the ignorant, the undeveloped, can be successfully ruled by an organization. When it is attempted to govern an educated, intelligent man like the doctor, *he invariably kicks.* It is his unalterable determination to preserve inviolate to his children and his children's children the liberty so dearly bought by the founders of this government.

Nightmares.

A nightmare is a very vivid dream, attended by sensations of fear, horror, suffocation, deadly peril. It is, as a rule, caused by indigestion, imperfect ventilation of the room, anything which threatens the physical well-being, or stimulates the nervous system, especially in a perverted way. Some drugs have this power, particularly in overdose.

The best way to avoid nightmares is to eat a light supper, spend the evening in agreeable occupation, not too exciting, and retire at a reasonable hour. See that the sleeping room is cool and well-ventilated. Persons subject to nightmare should not sleep on the back, but on the right side, should take daily outdoor exercise, and seek to avoid all that is morbid in life as far as possible.

If they still persist, there is an idiosyncrasy of the nervous system, and a calmative is indicated.

The Pretender.

Certain persons, with the excuse of benefiting the profession, are asking the manufacturers of successful remedies to give the details of their business. It is claimed that this is done to elevate the profession; the real object is to secure details of the methods and processes by which reliable preparations, preparations which have stood the test of time, are made so that they can manufacture substitutes.

Ethics is simply a cloak to cover the real motive. A child can see through such a pretense of disinterestedness. The manufacturer of an ethpharmal remedy never withholds from the doctor any information which he needs to use the remedy intelligently. The doctor knows what it is made from, its medical properties, indications and strength. That is all that it concerns the doctor to know. The exact details of each step in the process of manufacture are of importance only to the manufacturer or to those who may wish to pirate his knowledge, to steal from him the profits of his labors.

The manufacturer who tries to meet this demand is simply a fool, for it is certain to lead to still further encroachments. It is enough for the manufacturer to give the names of the plants from which his remedy is prepared. If anyone wants to know any more, let him go into the business himself. Those who claim that ethics require a man to give away a process which represents the expenditure of thousands of dollars, and years of effort, are simply trying to exact information they are unwilling to pay for.

The ethics of a remedy are determined by its intrinsic value. If the doctor finds it useful, and always reliable, in treating disease, it is ethical all right, and the doctor is the best judge of what he shall or shall not use.

The political doctor, the man who can not succeed in practice, is always interfering, making absurd and unfair demands upon the manufacturing chemist in the name of the profession when the profession neither knows nor cares anything about the issue involved. All that concerns the practitioner, the man who heals the sick, is that he shall have good medicines, remedies on which he can rely.

Manufacturers should stand up for themselves against the charlatans who want to acquire and profit by special knowledge without incurring the labor and expense.

The proposition made by certain medical journals that if the manufacturer will lay the information before a committee it will be kept secret, is unbusinesslike, not to say silly. Why trust the com-

mittee any more than anybody else. This reminds us of two men who were making a bet. One of them said, "But who will hold the money?" A bystander said, "I'll hold the money." "But," objected the bettors, "who will hold you?"

The manufacturer is asked to give his process, under a promise of secrecy, but who is to hold those to whom it is confided?

Always beware of the pretender. Under no circumstances give way to his demand.

A Curious Idea of Ethics.

There are certain medical journals in this country—if you keep your eyes open you will discover them—which have a most peculiar idea of ethics. Their idea seems to be that all remedies which do not advertise with them are unethical, and are to be slurred in some way. But the moment an advertisement of one of these remedies appears in their pages, it apparently becomes ethical, for there are no more knocks.

Most people would call this sort of thing blackmail, and no one should advertise in a journal which would adopt such base methods of doing business.

Fancy the state of a man having an advertisement in such a journal, which does not pay him, yet afraid to go out lest his product be held up to ridicule as a consequence.

Few *Americans* will submit to this sort of thing. We must say that neither the English nor the Americans are the kind to sit down tamely and be "held up." It is a good thing for liberty that there is one great race which will not let itself be wronged without reason or reprisal.

How Do You Like It?

Only thirty-one out of one hundred and thirty-nine prescriptions honestly filled.

CHICAGO, December 6.

Out of one hundred and thirty-nine decoy prescriptions sent out by the State Board of Pharmacy to Chicago druggists to be filled, twenty-three contained no trace of the drug called for, sixty-six were eighty per cent impure, ten twenty per cent impure, and only thirty-one were pure.—*New York Daily World*, December, 7, 1904.

Notwithstanding the above report, there is a certain class of physicians who howl when the doctor prescribes preparations in their original package, to avoid substitution.

The above is still another reason why the doctor should do as he pleases, and why he should study the particular druggist to whom he sends his prescriptions.

Another thing. While there are dishonest druggists, just as there are dishonest doctors, or dishonest anybody else, there is no reason why the whole class should be abused, and rest under unjust suspicion because of a few substitutors. The honest men in every trade or profession should protect themselves by combining against the dishonest few, that it may be known just how many and who they are.

Much more practical good can be done for the profession and for suffering humanity by the doctor's looking out for and exposing the substitutor, than all the bosh about ethics, all the talks about the benefits of organization control, will ever accomplish. Look out for the material interests of yourself and your patients. See that they get exactly what you prescribe for them, and not some substitute made up with wood alcohol. In other words, the Editor of this journal believes that the doctor should be practical, and look at things as they are.

Success and Optimism.

The successful man is invariably an optimist, not altogether because of his success, for that means heavy responsibility, but because hope, faith, self-confidence and self-reliance have bred the quality in him. Unless a man be an optimist he can not accomplish much in the world, because the conditions are against him. *The man who is always busy denouncing and abusing people and things lives in a cloud of moral dust of his own raising.* He can never see the opportunities which are constantly presenting themselves to the optimist.

The Editor of the BRIEF has always been an optimist, and to that fact he attributes much of his success—that and a definite aim, a persistent industry.

Success follows close attention to business, provided that business is pursued along legitimate lines. *No man can build himself up by pulling another down. He must add something of real value to the world.*

The physician is beginning to appreciate the value of optimism, and the necessity of close attention to his own business. He is beginning to see that abstract issues have consumed too much of his time and thought. The responsibility of his position is coming home to the doctor in a way that makes him anxious to get out of the ruts, *to cast loose from authority*, to investigate for himself, and know all that has been done and is being done, and to be free to select what he believes to be best for each individual case.

Therapeutics has begun to assume the proportions of a science, thanks to the painstaking efforts of manufacturing chemists in giving us stable medicinal agents of uniform strength, and a fine optimism has sprung up among practitioners with its development.

Therapeutics has enemies in the men, who, for the sake of their commercial interests, would restrict the doctor to the use of a single class of preparations instead of letting all rest upon their merits. With this end in view, ethical considerations and the doctor's prejudices have been twisted and turned in every possible way. The doctor is the only man who can decide truly in regard to the merits of medicines, and in common fairness he should be allowed to do it.

It is a mistake to tell the doctor he is unethical or ignorant if he uses certain preparations. The doctor is an intelligent man, and will investigate for himself. Moreover, if a certain remedy serves him well, he will go on using it, no matter what anybody says about it. As for ethics, the doctor is wise enough to see that all truth and honor begin and end in "Doing unto others as we would have them do unto us." All the rest is Phariseeism. The man who keeps faith with his fellow men has no need to defend his acts.

The MEDICAL BRIEF can not accept any dictation as to its policy. In the nature of things an enterprise must be left free to pursue the methods which seem best to it. Its reading pages are full of meat, its advertisements are high-class, its columns will always be open to the expression of anything which possesses merit or value.

The optimist is never a narrow sectarian; he sees good in everything. He wears no collar, is not blindly loyal, nor virulently abusive. The world is his hunting ground, liberty and knowledge his watchwords.

Cigarette Smoking.

Very few people are aware how much harm is done to young men by the almost universal habit of cigarette smoking. The man who smokes cigarettes has one always in his mouth, and is continually inhaling nicotine until the system is saturated with the poison.

The result of this practice is a catarrhal condition of the nose, throat and bronchi, a disordered and very irritable state of the nerves, a weak and rapid action of the heart and indigestion.

Thin, anemic, weak, with clammy hands stained with nicotine poison, unstrung nerves and degenerated muscles, the youth of the land go on ignorantly suffering the consequences of a pernicious habit until attacks of heart trouble, nervous prostration, melancholia, etc., bring their condition to the attention of the physician.

If a man must smoke—and we admit the charm of the habit to those who have become accustomed to its soothing influences—let him choose a mild cigar, and have certain set times for indulging. If he puts a certain restraint upon himself from the start in the matter of smoking, he will not overdo it, and there are few men who can smoke more than three cigars a day without injury.

It goes without saying that never under any circumstances should the smoke be inhaled.

Organized Schemes.

At this age of the world one is struck with the great number of organized schemes against the individual. There seems to be a mania in every department of life to organize schemes against him. And always, in every case, the reason advanced is to elevate the particular profession or business, to benefit its members. But if you take the trouble to go to the bottom of things, you will find that about the only people benefited are some one or two prime movers, who are using the organization to further their own purposes.

Fortunately people are beginning to find this out. This is particularly true of

the doctor. It is the educated and intelligent man, in almost all cases, who fails to join an organization; or if he does join, when the time comes that it is sought to use him, *halts and wants to know why.*

Even the most unthinking doctor must realize that abstract ethics and blind obedience do not help him to make a reputation or to cure his patients. He has to work out his own salvation and that of his patients who trust him, through self-reliance and the cultivation of his own faculties in the school of liberty and individual responsibility. The organization does not propose to assume his responsibility merely to curtail his liberty, yet freedom is the condition of progress and growth.

What do you think about it, doctor? Is it a fair proposition, a business proposition? A medical organization proposes to elevate the profession in some indefinite, intangible way. Who is to set the standards? A few men who constitute themselves authorities and hand down your opinions and remedies to you without any knowledge of the circumstances in each case, on the assumption that you are unable to think and judge for yourself. And if you do not comply with the rules and regulations laid down for your government, you will be punished by ostracism, a weapon you have helped to place in the hands of the governing few.

As to the claim of superior knowledge possessed by the few, stop and review the great number of fads which have come and gone during the century past. Hunt up some of the articles written by their sponsors and advocates, and note the tone of dogmatism which runs through them all. Do you want to see monarchical ideas grafted on medicine?

Did you ever stop to ask yourself why American doctors are in the very van of medical progress? If you have, and if you know anything about the history of medicine, you must realize that it is all owing to the liberty which the American doctor has enjoyed.

The American doctor has been forced to think for himself. He is naturally broad-minded and tolerant of temper, interested in all that relates to medicine, whether it comes within the boundaries of his own particular pathy or not. Such a man is bound to learn and to grow, unless the present mania for organization lays its iron fetters on him.

This does not mean that the doctor should live in isolation from his kind. The voluntary association of physicians to discuss scientific subjects, and promote social relations, is a very good thing, but the doctor should resist every attempt to coerce or to govern him. The organization takes away the liberty of the individual, and so obstructs progress. It is subversive of all that is best in medicine, or of any other department of life in which it attempts to exercise control.

The man who wants to use you, studies you. He probably knows your weak point better than you do, though you may be ten times the man he is. Watch him. Do not let yourself be prejudiced. Look at facts in a common-sense light.

Orders All Beards Cut Off.

December 25th, Paris.

All employes of the French Foreign Department have been ordered by Foreign Minister, M. Delcasse, to shave off their beards and moustaches. None is excepted. In answer to protests received from the Federation of Government Employes, M. Delcasse is said to have stated that even the moustaches of the employes were at the service of the State.—*New York American and Journal.*

This by a government calling itself a Republic! Think of it! A Republic! Ours is a Republic, too, but one such order as that would mean war, sure. Yet this is the kind of a Republic many think we should have, to be ruled by the State with a strong hand, government control of things, no liberty or freedom for the individual.

Doctor, this is the way the organization is working to control you. How would you like this?

Doctors of the United States are hereby notified that for the future they will be required to go clean shaven and with close-cropped heads, hair being deemed unhealthful and a carrier of germs.

By order of the Association.

A. Blank, M. D.

But the American doctor is too intelligent and liberty-loving to let either the State or an Association dictate to him whether he shall wear a beard or not, or do anything else. There is always somebody watching and planning to get control of you, to use you for their own purposes.

The world loves to have you bow down to the precepts of some fellow who wants to govern you. There is always someone waiting with a proposition to accomplish some impossible and unnecessary something, if you will agree to do as he says in everything. It is the same old story that the priests used to tell the people. Lay up interest for yourself in Heaven by giving up your chance of happiness in this world.

Religion has about outgrown this kind of thing, and it is too late to catch the doctor with such chaff. No thinking man will believe that you can give up your responsibility and your opportunity to drift at the direction of others, and be either prosperous or happy.

Can Not Understand Him.

It is very creditable to the average intelligent American that the foreigner from continental Europe can not understand him. This is particularly true of the American doctor.

When the foreigner corrals the doctor and proceeds to work upon his prejudices in order to get him in the proper frame of mind for driving, he invariably breaks out of the traces, and dares to think for himself. This startles and amazes the Europeans. They can not understand him. Hence they are always wondering why the American doctor will not wear a harness.

It is funny when you come to think of it.

The future of the medical profession rests with the English and American doctor. No other class of men is so free from prejudice. No amount of discipline at the hands of authority will ever deprive physicians of this race of their mental independence. They will always investigate for themselves, and decide for themselves in all that concerns them. Nothing and nobody can deprive a member of the Anglo-Saxon race of his rights; no, not even if he is a doctor.

The greatest compliment which can be paid to any man is to say that he can not be prejudiced either for or against any person or thing. It belongs by birthright to the Anglo-Saxon. He always proves to be the balky horse when you attempt to drive him.

[Written for the MEDICAL BRIEF.]

Reminiscent Chats.

BY OLD DOC.

Hello, boys, how do you find yourselves? What kind of an Australian winter is this, anyhow? Summer diseases and winter diseases are about equally distributed. On one side of you you have continued fever, and on the other pneumonia. Digestive troubles are about as common as in the good old summer time.

Say, I want to remind you to put a bottle of the brown iodide of lime in your bag and keep it there until the time for croup is past. There is nothing in the whole *materia medica* to beat the brown iodide of lime in this complaint, if begun early, and given in decided doses.

Don't forget the importance of a good nerve tonic for patients convalescent in an enervating climate or spell of weather.

Another thing. Don't forget that convalescence is often retarded by a weakened state of the heart. This can be prevented to a considerable extent by the timely administration of a mild heart tonic through the sickness.

Diet in convalescence is also very important. In diseases of the digestive tract, a return to solid food should not be made too early, and all articles of food about which there is any doubt should be avoided for some time.

Say, a hypodermic of atropine will bring relief from a paroxysm of asthma quicker than morphine, and is much safer to use.

Recurring crops of boils can be stopped by the use of small doses of Fowler's solution after meals.

In carbuncle and all bad states of the blood and secretions, the free use of echinacea, both internally, and as an external application, will bring about rapid improvement in the patient's condition.

Say, boys, try this for vomiting: Divide a seidlitz powder into four parts, and give one every ten or fifteen minutes. Given this way they will stay down, as a rule, and stop the vomiting.

In severe intestinal pain, whether accompanied by diarrhea or constipation, the use of an opiate does not interfere with the action of purgatives, and is not

contra-indicated, as is usually taught. I invariably give a hypodermic of morphine, if I can, in a hurry in all such cases where the perception of pain is acute, the mind clear and the pulse good. Give it in alternation with very small doses of nux, colocynth, aloes, chionanthus, podophyllin, or whatever is indicated. The routine use of a purgative in such cases is bad. Unless there is a history of constipation, relieve the irritation and spasm, and Nature will do the rest. If not, simple warm water injections will be sufficient in most cases.

Say, boys, equal parts of burnt alum and tannin, used as a dusting powder for venereal warts, will shrivel 'em up.

A sudden rise of temperature in patients suffering from articular rheumatism, without fresh joint symptoms to account for it, usually means that the heart has been involved. Keep an eye on it.

The tincture of galega in teaspoonful doses twice or three times a day, is said to be a first-class milk-producer. I have never tried it.

Say, try viburnum prunifolium in patients who suffer from varicose veins, cramps in the limbs, and rheumatism. It's fine for 'em.

For earache, a solution of atropine sulphate, two to four grains to the ounce of water, two or three drops, warm, in the ear, will relieve quickly. If not, repeat in an hour.

Say, for eczema of face and hands, make a saturated solution of sulphite of soda and use freely. Correct errors of digestion.

Phytolacca is mighty good for caked breasts, boys. A good way to use it is to make a poultice of mashed potatoes, held together by the addition of a little flour, and using them as hot as possible. Saturate the poultice with a strong tincture of phytolacca. At the same time the tincture may be used internally, in small doses, or, if there is much fever and circulatory excitement, use aconite instead.

A man with a fractured skull should be kept bed-fast for four weeks, no matter how well he fares, or how anxious he is to get up.

Apples are said to be more nutritious than potatoes; they are certainly more appetizing and digestible.

Many women find considerable difficulty in holding their urine. Every time they cough or laugh a little is expelled. In such cases, drop doses of tincture cantharides, afford much relief.

For fissured nipples, add a drachm of tincture of benzoin to an ounce of glycerine, and filter. Apply with camel's hair brush, and they will heal rapidly.

Say, boys, glycerine is a good medicine in some cases of acid stomach with sour belchings, etc. It makes a fine addendum to more active remedies.

Well, so long, see you later.

[Written for the MEDICAL BRIEF.]

The Therapeutic Effect of Carbonic Acid Gas in Chloriasis, Asthma, Emphysema of the Lungs.

BY A. ROSE, M. D.,
New York City.

Carbonic acid is absorbed by the mucous membranes, especially by the mucous membranes of the intestine, to a higher degree, and with more facility than by the skin. The rapidity of this process may be judged from the shortness of time it takes for an artificial carbonic acid meteorism to become reduced while there is no way of the gas escaping but through its channel of absorption.

The physiology and chemistry of respiration teach us that the carbonic acid of the blood exists as a constituent of combinations partly in the blood corpuscles, partly in the plasma, and in the serum. Whether a change in the composition of blood results where large masses of carbonic acid gas have been introduced into the rectum, and from there have found their way into the veins, is not known, no investigations in this direction having been published. The amount of the chemically bound carbonic acid in the serum of the blood is proportional to the amount of carbonate of potassium therein, and similar relations exist likewise in the blood corpuscles, and in the plasma.

Therefore, whether any and how much carbonic acid may be absorbed in the blood remains as yet an open question. Symptoms of intoxication have never been noted. Röhrig has made experiments on rabbits in this direction. He found that

very considerable masses of carbonic acid gas might be introduced into the veins without producing symptoms of intoxication, though such symptoms, doubtless, would occur if these masses had no opportunity to be eliminated by the lungs. Conclusive experiments on this point of venous injections were made by Nysten and Demarquay. The former having found that carbonic acid could be introduced into the veins without injury to health, Demarquay injected, within forty minutes, one litre of the gas into the crural vein of a dog without causing any change in the well-being of the animal by this experiment. It is certain that the greater part of the gas is taken up by the rectal veins and carried directly through the right heart into the lungs, while another part passes through the upper visceral veins into the portal vein, and thus also through the liver. Nothing is known of any effect produced on this latter organ.

The whole mass of gas introduced into the blood is carried to the lungs, from the lungs it is eliminated in a manner corresponding with the elimination of carbonic acid under normal conditions. The route which the carbonic acid pursues through the system is decided by the peculiarity of traveling in the direction in which it meets the least tension. On this law depends likewise its transmission from the tissues into the blood, as also its normal evaporation from the blood into the alveoli of the lungs. Although we know that this evaporation is limited, and is for one thing dependent on the celerity of the blood circulation, *i. e.*, upon the length of time during which the gas remains in the lungs, we may take for granted that at this point large masses are eliminated.

It is, therefore, evident that the carbonic acid gas injected into the rectum, and passing through the venous current causes no noticeable effect whatever in the system. Some of its therapeutic effects begin with its elimination from the lungs.

The acts of inspiration and expiration exert a direct influence on the contents of the upper air passages, but not on the lower, especially not on the air in the alveoli, which latter is, to a certain degree, independent of the phases of respiration. The changes in this air required for the arterialization of the blood take place by diffusion. From the alveoli of the lungs carbonic acid finds its way towards the atmospheric air, and oxygen in the opposite direction enters into the alveoli. This exchange of gases is favored, as mentioned by Landois, by the so-called cardio-pneumatic movement, that is, the shaking of the respiratory air with every contraction and every dilatation of the heart and every pulsation of the pulmonary arteries. Landois shows that on this cardio-pneumatic movement depends the sustenance of life during hibernation and during catalepsy.

Ephraim interested himself and extensively tried rectal injections of carbonic acid gas on patients. He reasons as follows: The large amount of carbonic acid gas introduced into the rectum passes through the veins, enters into the alveoli, and from there, obeying the physical law, is diffused in an upward direction, whereby an excess over the normal process of the diffusion of the gases takes place; that is, more than the normal amount of oxygen descends, the ventilation of the air passages being thus increased. In making this assumption, that the alveoli with this increased afflux of carbonic acid receive an increased amount of oxygen, he has in view the law according to which gases interpenetrate other gases, without causing pressure or expulsion, a law which in general governs the sustaining of respiration.

Experiments made by Speck have shown that increased ventilation of the lungs brought on by increased respiratory activity, that is, more profound inspirations, causes a large amount of oxygen to be retained in the body, but only a small part of this extra amount of oxygen enters the blood, by far the greater part of it entering into the composition of the residual air, and enriching it in oxygen. With the increased activity of the respiratory organs the body uses up a larger amount of oxygen than normally, and the small extra amount in the residual air is needed to cover the deficit, whence there is not enough left to add noticeably to the oxygen of the blood.

Ephraim leaves the correctness of this explanation undisputed, but adds that no application of it can be made to the manner of increasing the oxygen under con-

sideration, for, while the conditions bear some resemblance, they differ in essential points. He mentions the experiments of Pflüger on animals upon which tracheotomy had been performed as being more applicable. Here the conditions correspond with those presented by rectal inflation with carbonic acid gas. Pflüger found that with tracheal breathing continued for some length of time, the amount of oxygen would increase in the blood. This increase is due to facilitated and augmented lung ventilation, taking place after tracheotomy has caused the shortening of the distance between the alveoli of the lungs and the atmospheric air, thereby facilitating the intra-bronchial diffusion of gases.

The increased lung ventilation in animals with the trachea cut open, corresponds in so far with the better lung ventilation under consideration as that the oxygen in both instances is full gain, not being required for increased respiratory activity, but, according to Ephraim, the conditions for increased entrance of oxygen into the blood are still more favorable when carbonic acid is introduced by way of rectal inflation than in the case of animals with open trachea; just as the rising of the extra amount of carbonic acid gas through the veins causes an increased diffusion of gases within the respiratory passages, so will the gas diffusion between the blood and the alveolar air, which renders possible exchange of gases, be improved.

The result is not only an increase in the amount of oxygen contained in the alveoli, but also an augmented exchange of gases between it and the blood. The entrance of an extra amount of carbonic acid through the capillaries into the alveoli brings about increased diffusion, and a larger quantity of oxygen to the blood. The question whether this increased diffusion is followed by increased absorption, Ephraim thinks he can decidedly answer in the affirmative.

Summing up, Ephraim's view is that the carbonic acid gas taken up by the digestive tract enters the venous system, is eliminated by the lungs, and thereby brings on an improvement in the ventilation of the lungs, resulting in an increased accumulation of oxygen in the blood, and that this is the main factor of the curative effects thus far observed.

Ephraim administered carbonic acid gas per rectum, the cases being those exclusively of out-door patients, and he gave, as a rule, one, and in exceptional cases on account of special circumstances two, sittings daily. He employed the liquefied gas in the following manner: The carbonic acid gas is taken from an iron balloon in which it is contained in the liquefied form; a double stop-cock is attached to regulate exactly the flow of the gas from the balloon in which it is, naturally enough, under high pressure. The carbonic acid on escaping from the balloon at once assumes the gaseous form. From the balloon it passes first into a bottle filled with water. This contrivance to have the gas pass through water is for the purpose of enabling us to observe and to control the celerity of its escape. From this bottle it enters into an elastic tube terminating in a nozzle for the rectum. The nozzle having been inserted into the rectum, the stop-cock is opened to so limited an extent that we are enabled to count the gas bubbles passing through the water.

I have simplified the method of application. The illustrated description of my contrivance is given in a former issue of the MEDICAL BRIEF.

The patients treated by Ephraim were suffering from chloriasis, phthisis and asthma. There could have been no objection to more frequent application of the gas than one or two inflations per diem, but for his complicated and cumbersome method. These cases treated and described by him were as mentioned.

(To be continued.)

I send you one dollar for the BRIEF for 1905. I have in the past been a patron of high-priced medical journals. They treated almost entirely of surgery—capital operations—hysterectomies, laparotomies, and operations for floating kidney. The idea struck me that it would be better to take a journal that did not cost so much, and that treated of the "itch," coryzas, eczemas, measles, flux, and fevers, something met with every day. The MEDICAL BRIEF meets the almost daily wants.—J. W. BRYANT, M. D., Shamrock, Mo.

THE MEDICAL BRIEF

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[Written for the MEDICAL BRIEF.]

Paris Hospitals and Post-Graduate Work in Paris.

BY J. LEMARE BUNCH, D. SC., M. D., M. R. C. P.,
Late Assistant Physician to the German Hospital and to the North London Hospital for Diseases of the Chest, London, England.

During the last few years the majority of English-speaking students and practitioners desirous of working in a continental school of medicine, and attending continental clinics, have preferred to visit Vienna or Berlin rather than Paris. Such is especially the case with those who wish to take out courses in some specialty, and who intend to work hard at their special subject for a comparatively short time, doing as much practical work as they can. Undoubtedly the courses in Vienna, and, to a certain extent, in Berlin, are admirably arranged for such a purpose, and the number of teachers who can speak English makes things comparatively easy for the stranger who speaks none but his own language.

In Paris the field is as unlimited as in any other great city, and opportunities are many for seeing every branch of medical work, but the absence of concentration, and the fact that the hospitals and clinics are scattered all over the city, cause the visitors a considerable amount of difficulty at first. But to anyone who speaks French well, these difficulties are only of a temporary nature, and easily surmounted.

Most of the medical students have rooms on the left bank of the river in the Quartier Latin and the Quartier des Ecoles, close to the Boulevard St. Michel, and the buildings and laboratories of the school of medicine. The position is very convenient for anyone who wishes to attend the courses of lectures of the Faculté de Médecine, or to read a great deal in the library, and there are a number of students' restaurants and cafés quite near.

The Quartier Latin is, however, undergoing a period of transition, and has changed its characters very materially during the last few years, and hardly offers now the attractions which it used to do. If one is willing to be a little further away from the school of medicine buildings, excellent accommodation of any kind can be found on the right bank of the river, in the neighborhood of the Rue de Rivoli, and then one has the great advantage of being near the electric underground railway, which is an excellent method of transport.

Having decided on one's quarters, the next thing is to pay a visit to the office of the Assistance Publique, 3 Avenue Victoria, and obtain a "carte d'entré des hôpitaux," which gives a list of the chief public and special hospitals, with their situation, and is also a permit to visit each of them, if desired. Admission to the various clinics is, however, easily obtained, and in some cases examination of

the patients is permitted. Where the visitor wishes to attend a special clinic often, and to examine cases, it is advisable to bring an introduction to the physician or surgeon in charge. Such an introduction is necessary, in order to obtain admission to the Infirmerie de Saint Lazare, and to the military hospital of the Val-de-grace, but when permission can be obtained these hospitals well repay a visit.

Some of the clinics begin very early in the morning, and one may have to make one's way out beyond the Boulevard de Port Royal, some three-quarter's of an hour run from the Madeleine, by a quarter past eight in the morning. This means an early start, and on a cold morning in winter is none too pleasant.

The Paris steam-trams and horse omnibuses are none too rapid a means of conveyance, and whenever the electric tube can be made use of, it will be found a great improvement. Many of the Paris hospitals have far more beds than those in London. The Hôpital Saint-Louis, for instance, has one thousand three hundred and forty-six beds, and the Hospice de Bicêtre one thousand nine hundred and forty regular beds for old people, and one thousand two hundred and thirty for lunatics and epileptics.

The best hospital to visit first is a general hospital, and we will take the Hôtel-Dieu, which is situated close to the Cathedral of Notre Dame, and is quite central. It has eight hundred and eighty beds, five large amphitheaters and five lecture theaters, a laboratory of chemistry and of physiology, and many special departments. Professor Dieulafoy, whose reputation and skill are so well known in America and England, has two wards here, and his hours are half-past nine on Wednesdays, and ten o'clock on Saturdays. There is an out-patient surgical clinic every morning at nine, under M. Marion, and a medical out-patient clinic under Dr. Enriquez. The eye department is under M. de Lapersonne, the eminent oculist, and clinical lessons are held on Mondays and Fridays, ophthalmic examinations on Wednesdays. In the maternity department, the accoucheur is M. Champetier de Ribes.

The Hôpital de la Pitié, 1 Rue Lacépelde, is another well-known large general hospital, where besides medical and surgical clinics, M. Babinsky has two wards, and holds a clinic for nervous diseases, on Wednesdays, at ten. Dermatology is also seen to at the Pitié, by M. Darier, whose work on psorospermosis is so well-known, and who holds a skin clinic on Mondays and Fridays at nine.

The best known hospital for nervous diseases is the Salpêtrière, with three thousand eight hundred and eighty-three beds, for women, 47 Boulevard de l'Hôpital. The professor of nervous diseases, M. Raymond, holds a clinic on Tuesdays and Fridays, at ten o'clock, and an out-patient clinic for nervous and mental diseases on Tuesdays at half-past eight. On Sundays there is also a clinic at nine o'clock, under M. Charpentier. There is, in addition, a department of electro-therapy and radiography.

The Hospice de Bicêtre is also very well known, and will repay a visit. This hospital is peculiar in that there are no "externes" here, only "internes," and provisional internes. But the internes do not come very willingly to Bicêtre, partly because the distance from Paris is not compensated by any advantages, and partly because their lodging accommodation is not good. There are only ten rooms for fourteen internes, and some of these are sadly in need of reconstruction. The number of beds for lunatics and epileptics is one thousand three hundred and sixty-six. The physicians for mental diseases are most eminent, and the material for teaching purposes is excellent.

The asylums which are most worth visiting are those of Sainte Anne, Villejuif, Vaucluse and Charenton.

One of the most interesting hospitals in Paris is the children's hospital, and the members of the staff are mostly eminent. In addition to ordinary medical and surgical beds, and an out-patient department which is as noisy as it is otherwise good, there are beds for diphtheria, scarlet fever, measles and whooping cough, and a crèche for children under one year of age. The diphtheria beds are under the care of Dr. Marpan, and comparatively few tracheotomies are done, and more intubation. Medical and surgical clinics, including orthopedics, are largely attended by foreign practitioners, and the staff are, on

the whole, even more courteous than at many of the Paris hospitals.

Not far off, in the Rue Deufert-Rochereau, is another children's hospital, with eight hundred and fifty beds, and beds for infectious diseases.

Midwifery can be followed at several hospitals—Tarnier, Baudelocque, Saint Louis, and the Maison Ecole d'Accouchements. The service at the Tarnier is good, but it is necessary to obtain a card of authorization, in order to follow it and examine the cases. Lectures are given on Tuesdays and Saturdays at nine.

At the hospital last mentioned in the above list, midwives only are trained, and there are usually about a hundred pupils at a time. They have to pay one thousand francs a year, and the period of pupillage is two years.

Urinology is well provided for at the Hôpital Necker, where there is a large out-patient department, and a good genito-urinary service. M. Guyon holds a clinic on Wednesdays and Saturdays at ten o'clock, which is largely attended by students and doctors, and courses can be attended in cryoscopy, cystoscopy, and the application of electricity to genito-urinary treatment. The technique adopted here in lithrotrities is worth studying to anyone who is interested in the subject, and the department for general surgery should also be visited when one is at the hospital.

Many of the hospitals, unfortunately, are old and in bad repair, and this is not compensated for by their size, and the amount of ground they cover. The courtyards or squares round which the blocks of buildings are constructed, are good in their way, and of great importance for ventilation; moreover, they are of service to the convalescent patients, and to those who can be moved out of doors in fine weather, but the buildings themselves are naturally of still more importance, and it is these which, in many cases, are so sadly in need of reconstruction. The wards, too, are old, and sometimes appear to be saturated with germs. In one corner of a ward in the children's hospital, for instance, I was told by the physician in charge that every child under two years who slept in one of the cots there was certain to develop broncho-pneumonia.

The Saint Louis Hospital, which is so well-known for its department of skin diseases, covers a great deal of ground, but the buildings are mostly old and bad, and the museum, where their famous collection of wax models of skin diseases is, so badly constructed and abominably lighted, that on a dull day it is impossible to make out what many of the models are intended to represent. The library, too, at the Saint Louis Hospital has no carpet or other covering on the bare boards, so the noise of anyone moving about in the room is sufficient to prevent people working, or taking advantage of the collection of dermatological literature, which is extensive and fairly comprehensive.

The Saint Louis school of dermatology attracts visitors from all parts of the world, and the nationalities which are represented at one time in the consultation rooms are many and distant. Doctors from Turkey, Greece, Spain, South America and Russia may meet English-speaking doctors from Australia, Canada, or the United States; the crowd, in fact, is cosmopolitan, but English is not as a rule the language which is best understood among them. At this hospital general medicine has no department, but, instead, the pathology and treatment of skin diseases receives every attention. Six physicians share the beds reserved for cutaneous diseases, and each holds a consultation one day a week, and next day examines the cases which have been admitted to the wards. Lectures and demonstrations are held every week, and courses can be taken in the histology, pathology, and treatment of cutaneous diseases.

A special building is set aside in the hospital for school children who have ringworm. They have ordinary school teaching, and their ringworm is treated, the new cases by the application of X-rays, as described in my paper in the *Journal of Dermatology*, July, 1904, "Sabourand's Treatment of Ringworm by X-Rays at the Saint Louis Hospital, Paris."

Venereal cases are, of course, also treated at this hospital; there is also a good venereal department for women at the Broca Hospital, and for men at the Cochin-Annexe, No. 111 Bd de Port Royal. Female prostitutes are examined at the dispensary on the Quai de l'Horloge, the

service of inspection being made under the charge of Dr. Lemoine, and those who are found to be suffering from infectious diseases are sent to the prison and house of correction of Saint Lazare. Here they are treated and detained until cured, and to many of them the time seems to pass wearily, if one may judge from the requests to be allowed to leave, and the joy with which the permission is at length received. Some of the patients which I saw there were young, but the women arrested in the streets are not registered and put on the books of the police at the first arrest, so this and the fact that many suffering with venereal disease are treated privately, even when registered, accounts for the average age of the Saint Lazare inmates being somewhat raised.

Surgical clinics attract a great many visitors, and on the operation days of the well-known surgeons, there is frequently a large attendance. Although all the operation theaters are not fitted up in the elaborate and up-to-date way of best American hospitals, some of them are quite up to this standard, and the attention to detail leaves nothing to be desired. In these every effort is made to procure asepsis, one well-known surgeon going so far as to strip and don white sterilized tunic and trousers before operating. White caps are frequently worn over the hair, sometimes masks and respirators, while those looking on at the operation from the gallery either have to put on a long white overall, or watch through a glass screen. The results obtained quite justify these precautions, I am told, and in abdominal surgery especially, very great achievements have been placed to the credit of French surgeons. A study of their methods and technique can not fail to prove of the greatest interest to any surgeon of another nationality who finds himself in the French capital, nor will physicians or specialists be disappointed with a visit to a city which contains such vast stores of material, affords such excellent opportunities for study, and is famous for men so eminent in every branch of science and medicine.

I appreciate the bright and novel contents of the MEDICAL BRIEF.—I. H. BETZ, M. D., York, Neb.

[Written for the MEDICAL BRIEF.]

Epistaxis: Its Causation and Treatment.

BY WILLMOTT H. EVANS, B. SC., LONDON, M. D. (LOND.), F. R. C. S., ENGLAND,

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By epistaxis is meant the discharge of blood from the nostril, whatever may be its source, and whatever may be its cause.

Sir Thomas Watson well observed that bleeding from the nose is sometimes a remedy, sometimes a warning, and sometimes really a disease in itself, and this saying indicates well that epistaxis is very frequently merely a symptom, and may be an indication of some grave constitutional change, or an affection of a distant organ. When this is so, the arrest of the hemorrhage from the nose is merely the first step in the treatment.

The amount of blood that may be lost varies in different instances to an enormous extent. Sometimes there may be only a few drops; at others the quantity lost may need to be reckoned in ounces, or may amount to considerably more than a pint. As a rule, the statements of the patient are somewhat exaggerated, though quite unintentionally, for a little blood goes a long way; but it is certain that in some cases very large amounts of blood may be lost. It is customary to describe two methods by which the blood leaves the vessel; in one there is a distinct rupture, or tear, of the vessel wall, while in the other no such lesion can be found, and the blood is supposed to escape by "*diapedesis*," but this distinction is of very doubtful foundation, and as the amount lost bears no relation to the supposed method by which the blood leaves the blood vessel, the distinction may well be disregarded.

Epistaxis may have no effect on the patient, or occasionally it may give evident relief. When, however, it is profuse, long-lasting, or of frequent recurrence, the hemorrhage may give rise to syncope, or profound anemia, and occasionally, fortunately very rarely, it has led to death.

Before we enter on the important question of the best methods of treating epis-

taxis, it will be well for us to consider, at least briefly, the chief causes which may give rise to it.

The best classification of the causes of epistaxis is as follows: Firstly, those which are local, and, secondly, those which are general.

Or we may say that epistaxis can not occur unless either the wall of some vessel in the nose has been weakened, or the blood pressure has risen above its normal height. The circumstances which give rise to the weakening of the vessels are the local causes. They are bodily injury.

Hemorrhage from the nose is a very common result of a blow, or a fall, and is then rarely profuse, for usually there is only a small tear of the mucous membrane, and the bleeding soon stops on the application of very simple remedies, or, indeed, without treatment of any kind. A blow or fall, however, may give rise to epistaxis, owing to the production of a much more serious injury, namely, a fracture of the anterior fossa of the base of the skull. In this case, after the cessation of the hemorrhage there would not improbably be a discharge of a clear watery liquid, the cerebro-spinal fluid from the nose. This fracture is, however, a very rare cause of epistaxis, and I mention it only to point out the need for recognizing the lesion should this discharge of cerebro-spinal fluid occur, or the advent of cerebral symptoms indicate that a septic meningitis has supervened.

There is another form of injury which may give rise to epistaxis. Children often push foreign bodies up the nose, and the bleeding may result from the direct injury or the continued presence of the foreign body may lead to ulceration, and thus a vessel of the mucous membrane may be opened, and hemorrhage then occurs.

Other forms of ulceration may lead to epistaxis. The most common form of ulcer is that produced by constant picking at the nose; it is chiefly seen in children, though it is by no means unknown in those who are older. This form of ulcer is almost always situated on the septum close to the nostril. Syphilitic ulcers, both secondary and tertiary, and tuberculous ulcers, may also give rise to epistaxis, but only rarely.

All new growths of the nose may also act as causes, even the simple mucous polypi, but the hemorrhage is far more severe from the fibrous polypi, and all forms of malignant growth. These are all the *local* causes, and we must now classify the *general* causes.

In the first place, epistaxis may follow renal disease, especially the chronic form of Bright's disease, in which the blood pressure is greatly raised, and this is one of the commonest causes of epistaxis in the old. In many forms of heart disease the retardation of the blood stream, and the consequent increased pressure in the veins may lead to hemorrhage from the nose. This is especially likely to occur from disease of the mitral valve. In portal congestion, also, as from cirrhosis of the liver, epistaxis may occur, even though there is no general venous congestion. In whooping cough, too, the distension of the veins may be very marked, caused by the excessively violent expirations, and epistaxis is not rare, and the same effect may be produced by humors of the neck, which compress the internal jugular veins, and interfere with the return of blood from the head.

In violent sneezing, also, nose bleeding may occur. Violent exercise and violent emotion, especially anger, may also cause epistaxis. Plethora should probably be put into this class.

In a second group may be placed those causes which act chiefly by altering the constitution of the blood, and thus also impairing the walls of the blood vessels. These are scurvy, purpura, and some forms of anemia. In this class hemophilia also should be placed, and, in fact, it is the most important member of the group. In many of the specific fevers, epistaxis may occur, and prove very troublesome. It is seen chiefly in measles, scarlatina, diphtheria, typhoid fever, and also in typhus fever. It is especially in the more severe and adynamic cases of these diseases that this symptom appears. In most of these fevers, the epistaxis occurs during the course of the disease, but in typhoid it may appear at the onset of the fever. Pneumonia will naturally fall into this group. Some poisons also occasionally give rise to epistaxis; the chief are quinine, the salicylates, and phos-

phorus. There is probably an idiosyncrasy in these cases, but the possibility of a drug being the cause of the epistaxis should always be borne in mind, especially in recurrent cases, for it may be that the administration of the quinine or other drug is being combined or even increased in dose. Epistaxis may occur about puberty without any very obvious cause. It is sometimes associated with anemia, or constipation.

One group of cases still remains to be mentioned. In these the epistaxis is supposed to be "vicarious," that is to say, it is due to the absence of some flow elsewhere. The name is chiefly applied to cases where epistaxis occurs in girls or women who are suffering from amenorrhea, and it is thought that the nasal hemorrhage is a vicarious menstruation. It is possible that this is the correct explanation in some cases, but in many instances marked anemia or some other important blood change is present, and offers a much more probable explanation of the epistaxis. A few cases have been described in which an epistaxis has appeared to replace an habitual loss of blood from hemorrhoids. I should not like to say that such a transfer of the hemorrhage was utterly impossible, but I think it is intensely unlikely.

Lastly I must mention that epistaxis is sometimes seen when the atmospheric pressure is rapidly reduced, as in ascending high mountains, or in coming up from diving, or in leaving a caisson where work has been carried on under greatly increased pressure.

We have thus a very large number of causes of epistaxis, and it is frequently very difficult to diagnose between the several causes. In the treatment, however, we may distinguish two separate indications; first, the treatment of the epistaxis and, secondly, the treatment of its cause. We should not remain satisfied with arresting the hemorrhage; that is only the first step. We should endeavor to find out the underlying cause, which may be really far more important than the mere loss of blood.

In this connection the question arises, is epistaxis ever beneficial? The answer must certainly be that in some cases where the blood pressure has risen to a dangerous height, the withdrawal of a moderate quantity of blood from the blood vessels may reduce to some extent that pressure, and it is far better that a blood vessel should give way in the nose than that hemorrhage should occur on the surface or into the interior of the brain. It is, however, only to a moderate extent that epistaxis can ever prove useful, for if continued too long, or repeated too often, the harm caused will far outweigh any benefit which may at first have resulted. Thus, troublesome epistaxis in an elderly man may relieve the high arterial tension for a time, and it should indicate to the doctor the need for an examination of the urine, and the treatment of the renal condition, but it would be wrong to allow the hemorrhage to continue, for this would only serve to increase the anemia, which always accompanies disease of the kidneys.

The methods which have been advocated for the arrest of epistaxis are numerous. The vast majority of the cases are slight, and the hemorrhage ceases spontaneously, and these do not come under the doctor's care. Yet if slight attacks of epistaxis are repeated at short intervals, a very grave state of anemia may result.

Household remedies are capable of dealing with all the milder cases, and they include such methods as the application of cold to the nape of the neck, which seems to be undoubtedly efficacious in slight cases, and probably acts reflexly through the nervous system. Elevation of the arms above the head, also, seems to have some effect, but how it acts it is difficult to explain. These and similar methods may be sufficient for the slight form of epistaxis in the young, but it is as well to give saline aperients and general treatment to prevent a recurrence. When, however, a doctor is called to a case of epistaxis, it is probable that the hemorrhage is at least somewhat serious, and that some or all of these milder means have already been employed in vain. It is, therefore, usually waste of time to try these simple methods. In the first place it is advisable to put the patient into the horizontal position, with the head slightly raised, and the reason for this is that when a person is lying down, both the frequency and the force of the heart-beat are

diminished, and, therefore, coagulation can more readily occur in the torn openings of the blood vessels. It is better to incline the head to one side, preferably towards the nostril from which the blood is not flowing. The object of inclining the head is to allow the blood to leave the nose by the anterior nares, for if the patient is allowed to lie flat on his back with his face turned directly upwards, any blood poured out from a nasal vessel is almost certain to flow back into the pharynx, and thence into the stomach, and the doctor may think that the hemorrhage has stopped, though all the while the blood has continued to flow. It is important to bear in mind that in a very large proportion of cases, say nine out of ten, or perhaps in even a higher percentage, the blood in epistaxis flows from a vessel on the septum near the anterior end, and at the lower part. This can often be readily seen, and the applications suggested below can be made directly on the bleeding spot, and if this be done the result is much more satisfactory than if the remedy is applied indiscriminately to the whole of the interior of the nose, especially as most of these applications are of very little use unless they are in a concentrated form, and it is easy to see that strong solutions applied to the interior of the nose may readily damage the mucous membrane, and interfere with the sense of smell.

The simplest application to the nose is iced water, and this is best employed as follows: The iced water is contained in a convenient vessel, which is raised only a foot or so above the patient's head, so that the water is not discharged under too much pressure. From the vessel passes a rubber siphon tube, ending in a nozzle to fit one nostril. The patient sits up, and leans forwards, keeping his mouth open to breathe through. In this position the soft palate rises so that the iced water can enter by one nostril, fill that side of the nose, and pass over from one posterior nare to the other, escaping by the opposite nostril. Should he close his mouth during the washing out of the nose, the soft palate will descend, and the fluid will run down into the pharynx. This douching with iced water is especially useful when the hemorrhage is the result of a general oozing rather than from any definite vessel. It may also be employed in order to remove clots from the nose, so that the doctor can see clearly where to apply other means of arresting hemorrhage.

When a definite bleeding spot can be seen at the anterior inferior part of the septum, it may be touched with a galvanocautery; this should be at a dull red heat. Or a pointed stick of silver nitrate caustic may be employed, or chromic acid on a probe. This latter is prepared by heating some chromic acid, and when it is melted, dipping into it the end of a probe; sufficient chromic acid adheres to enable it to be used as a caustic.

Perchloride of iron is an unpleasant preparation, and is better avoided.

With all these substances the solid form is much better suited for application, as its action can be more localized than if a solution be employed.

The local application of a solution of supra-renal extract is useful, and it is best employed as follows: A small piece of lint is dipped into the solution, and laid upon the bleeding spot, and held in position for a few minutes. Mechanical pressure on the ruptured vessel is efficacious, and often in the milder cases the mere compression of the nostrils between the finger and thumb will suffice. If all these methods have failed, then recourse must be had to plugging the nose. The simplest method is by the use of Cooper Rose's inflating plug. This consists of a soft rubber bag, which is passed into the nostril, and then inflated. It presses on the bleeding spot, and so arrests the hemorrhage.

Of course this appliance will probably not be at hand when wanted. Anterior plugging of the nostril may be sufficient. A long strip of aseptic gauze, about one-half inch wide, is taken, and it may conveniently be dipped into a solution of hydrogen peroxide. One end of the strip is pressed as far into the nostril as possible, and then the adjoining portion is passed in, and so on until the nostril is filled. Very rarely the posterior nares may need to be plugged as well as the anterior. By means of a soft catheter, or of the special sound designed by Belloc, a piece of silk is carried through the nose into the pharynx and out of the mouth. To the

mouth end of this piece of silk is firmly attached a pledget of lint, about one inch long and one-half inch wide. This is drawn by means of the piece of silk, and guided by the finger till it rests at the posterior nares, and to the anterior end of the piece of string is fastened another plug to block the anterior nares.

Whenever any form of plugging is employed, it should be wrung out of a mild antiseptic, as decomposition very readily takes place. All plugs should be removed at the end of twenty-four or thirty-six hours, or septic ulceration may ensue.

Carnot has recently recommended a five per cent solution of gelatine for stopping hemorrhage. The melted solution is injected into the nostril by means of a syringe. It is said to be efficacious, but the substance is liable to decompose rapidly, and, therefore, it is well, a few hours later, to wash out the nasal fossæ with warm water.

In treating epistaxis it is far better to use one method thoroughly than to run from one method to another without giving any one method a fair trial.

[Written for the MEDICAL BRIEF.]

Why People Grow Deaf.

BY OSCAR F. BAERENS, M. D., PH. G.,

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In presenting this paper it is not my purpose to add to the already abundant literature extant, neither do I presume to say anything unique or novel on the subject especially to the specialist, but to the general practitioner I would say "lest we forget." As a specialist in diseases of the ear, nose and throat, I, as a matter of course, meet the general practitioner in the nature of a consultant, both in my office and in his. During a period of years I have kept a record of all cases in these departments of medicine coming under my observation. Referring to this record I find that about eighty per cent of these cases are ear cases embracing the various forms of hearing defects. Fully sixty per cent of these cases are "chronics." I believe that my experience differs little from that of my friends similarly engaged.

To me this signifies several things. The organ of hearing has always been, and still is, unjustifiably passed over as of minor importance by both the layman and the doctor. Of course, there are reasons for this, consideration of which I am obliged to forego here for lack of space allotted me. These cases being chronic in character now, must have had an acute stage which was either so trivial as to be dismissed without sufficient attention at the time by either patient or doctor or both; or circumstances were such that the trouble was allowed to progress until in the very nature of things it demanded attention. In nearly all of these cases I found that a vast amount of discomfort, pain, loss of time and money might have been spared by timely prophylactic treatment, and it is to these causative and preventive factors that I briefly allude.

Much of the trouble originates in the nose and naso-pharynx. I find these cavities the most neglected of any, the reason therefor being that it requires some skill to examine it properly by means of the small mirror and reflected light. In nearly every case referred to I have found some pathological condition present, ranging from a simple hypertrophy of the mucous membrane to a syphilitic gumma. Nasal obstruction is now conceded by all investigators to be the primary cause of about sixty per cent, or perhaps a greater proportion of ear diseases, the exanthemata and the kindred diseases of childhood coming next, injuries and congenital defects completing the etiology. If we but reflect a moment upon the vast amount of nasal troubles with which nearly everyone is afflicted in a greater or less degree, and note how much this important organ is consigned to neglect, it need not surprise us that the natural resisting powers and restorative processes are weakened in time by continuous irritation; and inflammatory conditions eventually result, accompanied by sequelæ more or less destructive to the functions of organs of vital importance to the individual.

The simplest catarrhal condition of the nasal mucosa will menace the auditory function in time by the effort of contin-

uous blowing of the nose. We have but to remember the very close anatomical relation and location of the eustachian orifices to the "back door" of the nose, or to employ a more technical expression, the "posterior nares" or choanæ, in order to understand the involvement of the hearing mechanism. So it is that catarrh is occasionally recognized by even the uninformed layman as a source of ear trouble, and in nearly every instance by the doctor; but if the latter be one of a class of practitioners who still refers to this condition as a disease *per se*, there is little the patient can look forward to from such a medical man in the way of intelligent treatment, he having no exact knowledge of the cause does not remove it. It is to be sincerely hoped, however, that in the near future this word "catarrh" will be omitted entirely from the medical dictionary, the text-book and general literature, and that teachers will impress upon their students the fact that *catarrh is a pathological condition of a mucous membrane, characterized by hypersecretion of a varying nature, depending for its existence upon some abnormality or pathological condition within the nose or elsewhere, or upon some perverse physiological function, or both.* This definition is better than any that has come under my notice for years, and I repeat it over and over to my students year after year, endeavoring to impress it upon their minds for their guidance, and for the benefit of their patients in future years.

Nasal obstruction is a subject which receives my greatest consideration and study, knowing its importance upon adjacent cavities and correlative organs. Among the various nasal disturbances which tend to produce cophosis, or defective hearing, are simple coryza, chronic coryza, intumescent rhinitis, purulent and fibrous rhinitis, vaso-motor rhinitis, hypertrophic and atrophic rhinitis. Next in frequency come abnormalities of development within the nasal fossa; septal redundancies, anterior and posterior; deflections of both the cartilaginous and bony septa, ridges, spurs, exostoses, synechiæ, hypertrophic and cystic affections of the turbinated bones proper, diseases of the ethmoid cells and adjacent sinuses; new growths, such as polypi, adenoma and osteoma. In the naso-pharynx we find these conditions in an acute or inflammatory state, and in a large number of the cases the well-known and only too often neglected adenoids. These growths so common among children are responsible for most of the juvenile ear cases coming to the specialist's attention, unless produced by the exanthemata. It is most unfortunate that this class of cases goes unrecognized by so many physicians. The characteristic objective symptoms being so pronounced, the open mouth giving rise to the "hang jaw," the drooping eyelids, the puffiness over the bridge of the nose, the highly arched and nearly V-shaped hard palate (and, with this, irregular teeth), the reflex symptoms, such as enuresis, disturbed sleep, snoring, the semi-choreic movements of the various sets of muscles; the apathetic listless and sometimes idiotic expressions on the faces of the children, and the history of tardy mental development, all these should make the diagnosis most easy to any physician. To verify it, the finger need only be passed up behind the velum, or soft palate, when these soft masses can be easily detected. It requires no great skill to locate these offending lymphatic masses, and no really good excuse exists for their tolerance in this locality.

Nasal inflammation and nasal obstruction leads to irritation, irritation leads to hypersecretion. Hypersecretion necessitates one or more efforts, often repeated, to free the nasal chambers from the accumulated secretions, and with nearly every effort the sufferer practices Valsalva's experiment in a way, and forces some of these secretions into the orifices of the eustachian tubes. Absorption goes on all the time, and eventually the victim of, shall I say "catarrh," finds that his hearing is diminished or lost, or that he has a discharge or "head noises," or some other condition which demands medical treatment. At this stage it is most important that the medical practitioner consulted knows what is to be done, or not knowing how to proceed leaves it undone, and sends him to some one better prepared to carry out intelligent and scientific treatment.

Few people living in this enlightened century expect one man to be master in

every department of medical science or surgical art. How much better it would be if every practitioner knew something of everything, and all about something pertaining to his own vocation. If the writer has succeeded in throwing a few side lights on one or more obscure points he will feel well repaid for the time and work expended on this paper.

Commercial Building.

[Written for the MEDICAL BRIEF.]

A Plea to the General Practitioner in Behalf of All Those Suffering From Hypertrophy of the Prostate.

BY G. M. PHILLIPS, M. D.,

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Of medical men I feel safe to say that their keenest interest attaches to those matters in which they believe themselves capable of doing the greatest good, and these are the subjects most studied by them. We must believe also then that the greatest indifference and incompetency is displayed in those situations least perfectly studied and understood. So thoroughly have I been impressed with the lack of confidence and understanding on the part of the general practitioner in the department of modern prostatic surgery, that I have wished that some of our more able and zealous genito-urinary workers would come forward and inaugurate an educational campaign to the end that the great body of medical practitioners might know the volume of good work now being done in this department.

The single purpose of this article then will be to open for criticism and further enlargement this one feature of the subject—prostatic hypertrophy, invite a livelier interest and point the way to a more rational and scientific disposal of a most interesting and worthy class of sufferers.

I will grant that the majority of our profession well understand the prostate with respect to its anatomy, physiology, etc., and I will also grant that the complications displayed as a result of hypertrophy of this organ, along with the many symptoms that follow, are reasonably well known and understood. Of such sufferers as these, their histories and their real conditions are essentially the same wherever met. Literature bearing upon this part of this subject is not wanting, and it is to the general practitioner that these cases apply for early diagnosis and treatment.

Why, then, is this class of sufferers permitted to drift along, growing worse from day to day?

Why is it that they are so difficult to reach with reason?

Why is it that they persist in declining radical and curative attention when they so well know to-day that most sufferers are ready and willing to accept anything or to submit to the most serious surgery that promises permanency of relief?

Why is it that most physicians will assume so grave a responsibility and continue to treat symptoms alone, watching the development of new and serious complications as they must surely arise, with the full knowledge of his inability to do more than palliate and stay the process for the time being?

Why is it that so many of this class die without having had special attention?

Why is it that prostatectomy is so often followed by a long and tedious convalescence, and why is the mortality rate so high?

Day after day we listen to the same old story about the old gentleman who has suffered the inconvenience and tortures incident to a progressive enlargement of his prostate. At first merely suffering a loss of sleep, owing to the frequent desire to empty his bladder; later, the resort to a catheter, then cystitis, fever, and a general decline in health; next the use of urinary antiseptics, vesical irrigations, soothing rectal suppositories, etc., and still the patient steadily growing more and more infirm.

You may urge upon the attending physician the necessity of removing the obstruction that is responsible for the symp-

toms. You may point out to him the harmlessness (under favorable circumstances) of such a course, and the great benefit to be derived, and yet be rewarded for your pains by being advised that later on he will probably submit. You may be told that his age is so extreme that it is not worth while to make such an attempt, and I have many times been advised that the old man was prepared to die, that the family was reconciled, and why not let the old man die in peace? Without imposing upon the reader a detailed account of my own prostatectomies, and without detaining you at this time with the recent brilliant work of the genito-urinary surgeons in this department, I will aim to explain why it is that the general practitioner so often fails to render the only service to such patients. Why it is he hesitates to take into his counsel and confidence the most convenient and best known genito-urinary surgeon until the case is beyond hope of repair. I will hope to show the basis of all the prejudice that exists upon the part of both the physician and the patient.

I think that I can readily show that these patients, though well advanced in years, as a rule, have equal rights with younger people to live and to live in peace. I feel myself competent to explain the high mortality attached to such situations as these, and to show wherein lies the responsibility and the reduction of this great mortality rate. I think that I can demonstrate the early recognition of prostatic hypertrophy, and show that the obstruction is one easily removed, and I will conclude with an appeal to the physician into whose keeping these cases first find themselves, with all the force and earnestness at my command, and hope that all those now engaged in this work will take up the task that I have here begun and not finish until every member of the medical profession is awake to the situation as we so well know it to-day.

The fact that such a large number of sufferers from hypertrophy of the prostate die without having been examined or prescribed for by the genito-urinary surgeon, and the further fact that many apparently hopeless cases of this kind have been referred to us and are perfectly and permanently cured to-day, I believe justifies the claim that all such cases should be referred to those especially prepared to administer to them.

Some physicians are slow, I believe, to ask for consultation on account of the confidence reposed in them by the venerable sufferer, fearing it to be an admission on his part of his incompetency to supply to every suffering subject (no matter from what cause) the treatment which he stands in greatest need. The failure to procure efficient consultation and service here can only be explained through a spirit of selfishness or arrogance.

Again, sufferers of this class are denied the services of those best qualified, for a different reason. There are many practitioners unselfish and well-meaning, those ready at all times to make a personal sacrifice in behalf of those intrusted to them, but whose time is so taken up in doing good work along so many different lines that the opportunity for advanced or special information cannot be had. There are those also whose only knowledge of special subjects is measured by the attention devoted during their college days, and are therefore ignorant of the possible benefits to be gained through association of the genito-urinary surgeon of to-day, and they, of course, permit their patients to suffer on.

Another class of physicians, small in number, I am glad to believe, narrow and mercenary, whose sole purpose in life is gain, no matter at how great, or at whose expense; men in the community known as doctors and holding the confidence of a good and generous public, those who rather than sacrifice the price of their daily visits, will encourage such patients in the belief of ultimate recovery through methods that they provide and permit whatever end to come that may. There are men in the profession, I believe, who had rather carry a wreath of roses to the grave of a departed patient than to have him cured at the hands of another. To this class I have no time to devote, and I shall make no appeal to them. They can not be reached through any of our higher appeals; all avenues of approach are closed, save one, to show them wherein they may profit and you at once gain their interest.

That old men have a right to live none will dare deny, although many are permitted to drag out a miserable existence who might otherwise and under different surroundings live many happy years and render great service to their country, families and mankind in general. It is not within the province of modern medicine to say when another shall quit his existence, and while I dwell upon this feature of the subject, and from among a very large class who have suffered in this way and recovered, I recall one especially whose name and address I think myself free to give, one whose condition was extreme, the operation tedious, and whose complications were many and serious; one whose recovery was slow, painful but perfect; a case considered hopeless, yet to-day the man is in full possession of all his physical and mental faculties, perfect in strength and health, without a pain or ache; a man who since his recovery has accomplished more than at any previous period of his life. He was permitted to live through the removal of an enlarged prostate, and has made comfortable and luxurious the lives of many. He is well, contented and happy, and bids fair to continue so for many years to come. His name is L. P. Cunningham, Joplin, Mo. If for no other reason than this, I feel free to say "Deny no man the opportunity to live."

The mortality in this situation has been and still is high. This I will admit. Heretofore the technique of the operation has been very different from what it is to-day, and yet all the while these patients for the most part have never consented to an operation except as a last resort, and then not until serious complications have arisen and until all powers of resistance and recuperation have been impaired or destroyed. What results then might be expected of old men in such a state as this? On account of this high mortality still less heroic measures have been advised and proposed. Many methods that now appear ridiculous to us have claimed the attention of the profession, and I am free to confess that I myself have been guilty of doing much useless work in this direction—work which, for the time being, I believed to be justified, yet which did not appeal to my better judgment; work that was useless yet harmless. I performed double castration a great many times and enthusiastically advocated the method known as the Bettini operation. I have injected into the hypertrophied organ all the remedies that I believed capable of doing good and have met at every turn disappointment. I do not feel lonesome in this chase for a cure of prostatic hypertrophy, for our best and most conscientious men have been participants, and to-day most of us plead guilty of having been lured by false lights; of having followed a vision with the hope of learning a new and safe method of treating this condition.

This subject you will then understand has been one upon which there has heretofore been no united opinion, a condition of uncertain outcome, yet in the face of all this, I feel safe to say to-day that upon so important a question of surgery there is no greater unanimity of opinion among its active workers than upon prostatectomy, or to the total removal of the prostatic gland; that it is the safest and best and the only rational and proper cure for the sufferers of this class. Without fear of severe criticism, I will go further and say that if the physician first consulted in these cases, will know and do his duty, if he will consult with his genito-urinary surgeon early and before serious complications make their appearance, the mortality will at once be minimized. Prostatic hypertrophy is easily diagnosed; there is no excuse for a mistake. I have many times stated publicly, and before my classes I have taught that the instruments necessary for the diagnosis could be purchased for fifty cents. If your patient be fifty years of age or upwards; if he complains of having passed his water once or oftener during the night; if the stream of urine is lacking in force, or dribbling; if after passing urine a soft catheter be introduced and additional urine is drawn, and in the absence of stricture or other obstruction to the outflow of urine, the diagnosis is established beyond a doubt and the case at once belongs to the genito-urinary surgeon. To detain such a patient as this, to tinker along with him, to build up his confidence in you, to fail to advise him fully and insist upon proper

consultation, is a sin. It is a blot upon the profession of medicine in which we claim membership. This is trafficking in something which, when lost, you are hopeless to restore: this is trifling with a most serious and sacred trust. To-day the country is full of good and competent men in this department. No city of any importance is without one or more men competent to do this work and anxious to become the friend and co-partner with the general practitioner, competent and willing to carry the responsibility and to return to you your patient, free to sound your praises and remunerate you for your services, and to appreciate your judgment, your generosity and your good offices.

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[Written for the MEDICAL BRIEF.]

Marriage and Divorce.

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[Paper 1.]

Recently the subject of divorce has assumed an importance in social affairs which it never seemed to have before. To those of a formal and conservative turn of mind, the situation seems to present the appearance of a recent serious moral declension, a loosening of respect for religious vows, a fickleness of affection in the marriage relation, which almost causes the suspicion that the educated and cultivated elements of our race have become accustomed to enter that relation without any real abiding love, or any serious expectation of its permanency.

Stories are told like the following: "At an evening party in one of our large cities, a lady came up to bid her hostess goodnight, and thank her for her kind entertainment, and remarked, 'It was so nice of you to send me in to supper with Mr. Brown; I have not seen him for years, and we used to be such good friends. Why, he was my third husband, and I was so glad to meet him again.'"

We have always been taught that the home and the fireside were the very foundations of all civilization and morality, that the noblest aspiration of mankind was to build up a home and family that would perpetuate the name in a long train of posterity. Certain it is, in the experience of every person past fifty years of age, that there is no real pleasure, save in the progress of children. At that age personal ambition either passes away or becomes ignoble and mercenary. Aside from all religious ideals, it is a very desirable thing that marriage should be monogamous and permanent. It is necessary to the State that its citizens should be well brought up. That children should be instructed in the great moral principles by precept and example. This can not well be done anywhere save in the home. It seems that the object to be obtained is so desirable that great personal and public sacrifices ought to be made to preserve the marriage institution in its permanency.

To this end there have been suggested a great variety of remedies, and the laxity of which we complain has been attributed to a great variety of causes. Some people counsel greater prudence in contracting marriage. They urge the postponement of the event until more mature age and better financial prospects. Yet it is just as frequent for connubial unhappiness leading to separation to occur among the financially well-to-do as among the poor and laboring classes, and just as frequent for it to occur among those who marry late in life after the character has become inelastic and unmouldable as in the more youthful.

Those who cling closely to church traditions and affiliations attribute the frequency of divorce to a progressive infidelity, a sort of weakening of religious influences. A prominent preacher told me that he believed the prevalence of divorce was due to the law permitting civil marriages. He said that those who had their marriage ceremony performed by a justice of the peace did not consider the tie so binding as when it had been performed by a regular minister of the gospel. I suggested that what was eating him might be only a depreciation of revenue, due to loss of fees. General observation of divorce records would not lead one to believe what he claimed to be a fact. Divorces do not occur more frequently among couples married in this

manner, except in localities where a large number of the so-called Bohemian caste reside. These unstable elements of society are prone to divorce, owing principally to their nomadic tendencies. Many of them are entirely promiscuous in their sexual relations, not even taking the trouble to either marry or obtain divorce. Where they do marry, the third element of the family, the children, is missing. Homes are seldom or never formed. Church influence requires a permanent place of abode, and for this reason this class of people often resort to a civil marriage, whenever they have sufficient regard for social formalities to marry at all. It is a fact, which is vouched for by every respectable and truthful record, that in countries such as Mexico, where the law has made marriage expensive, the illicit family relations entered into by the people are just as permanent, in every respect, as real marriage. And in some isolated localities, such curious proceedings as jumping over a broomstick are seriously considered as being quite essential to the strict legality of the bond. I believe there is no doubt that a moral defect or inadequacy enters into the cause of every individual divorce, should the conduct of the parties be fully known and compared with the best local standards of right and wrong. The defect may exist in and be the fault of either one or both of the contracting parties, generally both. This defect usually acts as an exciting cause, a sort of igniting spark, which sets off a long train of inflammable powder, over which and in the midst of which the couple has been treading for years.

These causes are, we believe, social, and lie much deeper in the history and habits of this generation. It is the theory of law that moral defects are correctable to a certain extent by force, but the favorable social circumstances for such correction, which exert such a pressure on the moral inadequacies, are a problem, indeed. It is for the purpose of making some inquiry in these circumstances that this paper is written. It seems to me that it is impossible to understand the causes of divorce, unless we understand the objects to be attained by any system of marriage, from every point of view, physical, historical, social and religious. We should try to ascertain the causes which tend to make the relation permanent, and the causes which tend to make it transitory. The causes which tend to the system of monogamy, and those which tend to the permission of polygamy or may be polyandria.

Let us endeavor to find out what the original condition was when the race was still in the savage state, and why it changed. The God that reigns on earth is the God of "things as they are;" however, we may, in our ideals, worship the God of "things as they should be." It is evident to all thinking people, and especially to one whose profession takes him into the midst of families other than his own, that society always wears a great mask. It is, perhaps, well and proper that this mask should be worn. The green moss of Nature's forest covers a mass of rottenness and decay, and renders the surface beautiful to the eye. But we must look beneath this mask for the causes of things. It is here that the wheels go round that move the hands upon the dial. It is here that hidden springs exert their influence. It is here that the real character of a people brews, like the leaven in the lump, while a smiling reputation grows verdantly overhead.

Marriage was established by God, in the days of man's innocence, so says the ancient Episcopal service. This is, indeed, true, but, perhaps, not exactly in the same sense, that every newly-made bride may look at the matter. In the most primitive society there has always been some sort of a ceremony, or process, by which a man might take a woman into a family relation with himself, and all other men recognize in him a special right, or claim, to her allegiance, service and association. Among one race only, and for good and sufficient reasons, this tie has for thousands of generations been a monogamous one, and very close and strong, while amongst other races, for an equally forcible and intelligent reason, the tie has been a weak, and temporary one. Every person, who thinks in a clear and connected manner, recognizes the fact of sexual incompleteness in the single individual. This incompleteness marks a certain degree of advance in the evolutionary scale, as the lowest orders

of plant and animal life are hermaphroditic.

Attempts at reversion to this type, both physical and mental, are occasionally seen, even in the human species. The first sign of leaving the primitive hermaphroditic state is an ever-increasing difficulty of auto-fertilization, and a final loss of that power altogether. Then appears a separation of the fertilizing apparatus, in the individual, such as may be observed in the tapeworm among animals, and in such plants as the alder and Indian corn. Here the individual retains the power of procreation by way of either sex, with other plants or animals of the same kind, but has lost the power of self-fertilization. Later, both in plants and animals, comes the entire separation of individuals into true males and females. This would seem to indicate that Nature herself recognizes the incompleteness of the sexes, as they exist alone, and the necessity for a union, both for sake of individual development, and for the preservation of the species. In this way marriage becomes the restoration of the original sexual union in nature. The two are made one. The separated halves are brought together, the one the true complement of the other. The most complete man or woman is the one with all faculties thoroughly developed, and in harmonious activity. No one of sound mind can, for a moment, claim that such a development is possible in any sort of organic existence where the two sexual elements are apart, the one from the other. This increased perfection of development is not only physical, but mental, moral, and, if you please, spiritual as well, if it be possible to correctly define what is meant by the term.

If there is such a thing as an inalienable human right, it is for each individual to develop, to the full capacity, every normal faculty and to have satisfied every normal appetite. The oldest laws do not recognize the individual at all, but merge the husband, wife and children all in one whole, and even to this day the law looks upon them in the same way. The cornerstone of marriage is physical, and first of all, the law recognizes the physical essentials. Without approximate physical perfection no marriage can exist. No matter how many ceremonies are performed, or what the degree of their solemnity, the marriage is null and void *ab initio*. It must not only be possible for the couple to live together as man and wife, but they must absolutely do so, or the marriage is not consummated.

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[Written for the MEDICAL BRIEF.]

On the Treatment of Sprains.

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The treatment of sprains is a matter of great interest to the general practitioner, since it embodies conditions which are very frequently found, and which are at great variance, under our present knowledge, with previously conceived ideas of the pathology of the subject. Sprains are probably the most common surgical injury, and result from both direct and indirect violence, and may occur at any portion of the body, but more frequently at the lower portions of the extremities, particularly about the ankle joint.

The essential lesion in the condition called sprain is invariably a subcutaneous laceration of tissue, whether that tissue be ligament or muscle. It occurs in an upper extremity more frequently as a result of a fall on the outstretched hands, the lifting of weight, or in the act of throwing, and is usually found about the tendinous insertions of the muscles of the forearm. In the lower extremities it occurs principally as the result of indirect violence, such as that caused by a mis step, turning over of the foot, or in the act of stumbling. Its rare occurrence in other parts of the body is explained by the pathological condition which, as I have stated above, is essentially a laceration. It being a well-known fact that tendons have a tensile strength greater than bone, it follows that a sudden extreme tension of the tendon may, instead of causing a tear of that tendon, cause a separation of a blade of bone corresponding to the insertion of the tendon.

To this form of sprain I wish to direct particular attention. It is more common about the ankle joint, and is, I believe, in an extremely large percentage of all injuries at this joint. It has been our custom from time immemorial to treat this condition as a simple traumatic injury, not taking into consideration the extent or even possibility of a bone lesion. In so doing we have frequently failed to achieve a permanent favorable result, leaving a permanently weakened condition of the ankle, which recurs at various times and proves very annoying to the patient.

From the size of the tendons, particularly those of the inner side at the lower portion of the leg, one can readily conceive that the tensile strength of these tendons is very great, and since the attachment of these tendons is to a great extent about portions of bone known as the malleoli, and since these malleoli are comparatively fragile, it is to be expected that whether or not a laceration of the tendon or ligament occurs, that a portion or all of the malleoli might be broken. Such I have most frequently found to be the case, the amount of injury to the malleoli varying from complete separation to a separation of a flake of bone. Repeatedly, because of the illy-defined nature of the injury, I have had X-Ray pictures made, and have been able to demonstrate very satisfactorily the separation of a small flake of bone or of the malleolus.

Now, it is in just these conditions that our older methods of treatment by means of hot applications are so unsuccessful, so far as the ultimate results are concerned, that a better method of treatment based upon a sounder conception of the pathological condition of the bone, a more accurate localization of the injury, and a more thorough examination of the exact extent of the injury will give us correspondingly better and more permanently useful limbs.

The clinical signs of sprain, whether they be at the ankle joint or any other portion of the body, remains the same; there being the history of the traumatism, localized pain, quickly followed by swelling, and immobility of the part, followed by a local temperature, is such as to render the condition easy to diagnose, even by a layman. Because of the commonly conceived ideas, it has not been the usual custom to thoroughly and accurately examine the sprain, and for that reason, perhaps more than any other, it has not been generally recognized that there is usually this partial separation of bone. It may be taken as a safe rule that an *acutely* localized point of pain about the malleolus, resulting from so-called sprain, is, in reality, a bone injury. Now, based upon our treatment of fractures of other portions of the body, it seems more logical to treat a separation of bone, which is in itself a partial fracture, even though it be denominated as a sprain, in the same manner in which we would treat other fractures. By so doing we limit the pain, the duration of the loss of function in the limb, and assure a physiologic repair, since in those cases there is probably never a true and wide separation of the fragments. It has been my invariable custom to firmly immobilize an injury at the ankle joint by means of a plaster of paris splint, after giving the limb time to have developed the utmost limit of swelling, and to absolutely prohibit the use of the limb for from one to two weeks, following this by an application of an elastic bandage, usually in the form of an anklet. The results by this method of treatment have been so thoroughly satisfactory as to justify its further continuance, and to justify the recommendation that it be made the usual practice in the treatment of so-called sprains, and that its use be further extended to the sprain conditions of other portions of the body, since it is based upon a sound physiologic method of treatment, viz., absolute limitation of function and the consequent beneficial influence of absolute rest. Following the use of that method of treatment we may confidently assure the patient that the result of the accident will be *nil*, that the limb will not give him any further trouble, either by pain or swelling, and that there will be no possibility of a recurrence of the condition.

1121 Cass Avenue.

[Written for the MEDICAL BRIEF.]

Concerning Rectal Examinations.

BY H. A. MORRISS, M. D.,

Professor of Rectal Surgery and Diseases of the Rectum in the St. Louis College of Physicians and Surgeons, St. Louis, Mo.

That branch of medicine and surgery known as rectal diseases offers to the charlatan success, and a field unlimited, not even approached in its magnitude by that more popularly heralded division known as "private diseases of men." All classes and both sexes are represented, and the results obtained are considered by the laity but little short of marvelous. The condition has been rapidly recognized by the adherents of unethical medicine as a field of enormous proportions, remunerative and gratifying in results. It has been relegated to this class largely through the lack of appreciation on the part of the ethical practitioner, partly on account of ignorance of its possibilities, occasionally on account of indolence or apathy, and generally caused by unsatisfactory methods and instruments employed in examination and diagnosis.

It is scarcely surprising that profound anesthesia is resorted to in simple rectal examinations when we observe the introduction through a fissure or inflamed canal of any of the self-retained speculums. One experience of this kind is enough to drive the hyperesthetic patient to morphine or the charlatan. Bivalve, trivalve and wire speculums are not only delicate instruments of torture, but are a menace to the continuity of the most healthy mucosa. Pneumatic proctoscopes and colonoscopes are almost useless so far as their practical effect is concerned. Theoretically they were attractive when first introduced a few years ago. They are not practical, first, because the sphincter does not grasp them with sufficient force to prevent the escape of air. Second, because distension beyond the normal tone of the organ leads to involuntary contraction, and requires some seconds to resume its previous caliber.

The anus, rectum and sigmoid flexure are best examined in the exaggerated knee chest position. Corsets, belts, etc., which do not allow perfect abdominal and thoracic freedom must be removed.

After inspection and cleansing of the external organ, the cavity must be flushed, a gentle shallow lavage of the rectum will remove whatever accumulation there may be. Temperature of lavage should be about the body temperature, and must not be given in a recumbent position, must never reach to the flexure, otherwise the site of examination may be deluged at an inopportune time.

Extreme gentleness is the first rule to be observed. There is no membrane in the body which in an inflamed condition is so sensitive as the muco-cutaneous border of the anus. Digital examination must precede the introduction of the instrument to determine the presence of abnormalities which might interfere with passage. The finger should be well lubricated with a soluble lubricant.

Should there be a hyperesthetic condition present, a suppository of opium inserted half an hour prior to examination will add greatly to the comfort of the patient. And immediately preceding the examination a cocaine tablet should be dissolved upon the surface or within the external sphincter.

The instrument should be slowly introduced; pointing anterior to the longitudinal axis of the body, until well within the external sphincter, then should slowly be directed posteriorly and slightly to the left of the median line until well into the rectum.

The instrument best adapted to this purpose is a plain tubular proctoscope, with an obturator, and should contain either attached or detached, a cold lamp.

Inflation is not necessary in this method from the fact that inflation is produced from the negative pressure of the knee-chest position. Likewise, it is not necessary after the internal sphincter has been passed to continue using the obturator, and the tube can be slowly introduced clear to the colon without the obturator, because the cavity is then distended. Applications and cauterizations can be carried on through this tube, as can minor operative procedures, cauterizing injections, etc.

357 Century Building.

[Written for the MEDICAL BRIEF.]

Pathological Conditions of Mother or Fetus, Warranting the Induction of Abortion.

BY JOHN C. MURPHY, A. M., M. D.,

Professor of Obstetrics in St. Louis College of Physicians and Surgeons; Obstetrician to the Jefferson Hospital; Gynecologist to the Woman's Hospital of Missouri; President of the St. Louis Academy of Medical and Surgical Sciences, Etc., Etc. St. Louis, Mo.

When we are considering the problem of bringing pregnancy to a premature termination, we are called upon to decide the gravest problem that human intelligence is called upon to solve. It brings into direct conflict the law of man which holds that the mother's right to live is paramount to those of the offspring, and the Supreme law which says, "Thou shall not kill."

The induction of labor prior to the period of viability practically means the destruction of the life of the fetus, that the mother's life may be saved. It is not my privilege to dictate your policy when confronted with a problem of this kind, as it is a matter each must decide for himself, and the moral phase of the matter each must answer according to his own beliefs.

When it becomes necessary to terminate gestation after fetal viability, or before maturity, two lives are to be considered. The most favorable time for the induction of labor is from four to eight weeks before term, as all the diameters of the fetal skull are about one centimeter shorter than at full term.

Indications for Abortion.—Abortion is indicated in the presence of some grave pathological condition of the mother or fetus which endangers the maternal life, grave diseases of the fetal appendages, as cystic diseases of the chorion, acute hydramnios, embryonic death. The maternal indications are, pelvic tumors or exudates, incarceration of the retroflexed or prolapsed uterus, undilatable atresia, or stenosis of the cervix or vagina, irreducible hernia of the gravid uterus, or cervical cancer, and extreme pelvic contractions.

Serious systemic diseases of the mother as pernicious vomiting, pronounced and increasing anemia, progressive nephritis, marked emphysematous conditions, chronic cardiac diseases, aneurism of the aorta, and in the extreme forms of chorea, insanity or acute mania.

The existence of these conditions must put the practitioner on his guard, but it is not to be understood that their presence in a modified form gives license to terminate the life of the fetus, as certain of the conditions mentioned, as vomiting, albuminuria and anemia, and certain cardia disturbances to a modified degree, are more or less physiologic processes of pregnancy, and it is only when these conditions become exaggerated and the mother's life is in imminent danger that abortion is to be thought of or considered.

The difference between nephritis and the kidney of pregnancy must be given due consideration before we decide to empty the uterus for possible nephritis. Albuminuria exists in about six or eight per cent of all pregnant women, and the presence of albuminuria, unless complicated by renal epithelium and other indications of grave organic disturbance of the kidney should not be taken as an indication of a destructive process. Chorea and other nervous phenomena may exist without marked hindrance to the mother or to the development of the fetus. So here again hasty judgment is not warranted. No matter how thoroughly convinced a man may be that abortion is indicated, he should not assume so grave a responsibility without the advice and counsel of at least one other competent physician, and the consent of the patient, as a matter of course, for the reason that an error in judgment means a sacrifice of a human life.

Methods of Terminating Gestation.—There are numerous methods of emptying the uterus during the early months of pregnancy.

Cervical and vaginal tamponade—The vagina is thoroughly cleansed by hot water douche followed by a thorough scrubbing with sterile water and green soap, cotton being used instead of a brush. The vagina is then irrigated with a one two-thousandth solution of bichloride and dried with sterile cotton. The cervix is then caught with a volsella, and partially dilated with a metallic

dilator until the cervical canal will admit the index finger. The cervix is then packed up to the internal os with a strip of iodoform gauze, the vagina is packed with a separate piece of sterile gauze; this packing is allowed to remain for from twelve to twenty-four hours, and then removed. If the expulsion of the ovum has not taken place, the packing is repeated and allowed to remain for a like period. If at the end of this period the ovum still remains within the uterus, more active measures are indicated. The method in my hands that has proved the most trustworthy and efficacious is rapid dilatation of the cervix, and removal of the ovum by the placental forceps, or in the early stage of pregnancy the ovum may be removed by the introduction of the finger into the uterine cavity, using the nail as a curette.

Of course it is understood that the most rigid asepsis is practiced during this entire procedure in the preparation of the field of operation, the hands of the surgeon and the instruments used. The possibility of producing infection is particularly great at this time, for the reason that the processes of Nature are brought to an abrupt termination when Nature is least prepared to withstand shock. The uterine sinuses are open, the glandular structure of the uterus is much more active, and the possibility of taking up infection and conveying it to the different parts of the body is much greater in the presence of glandular activity than when the glands are in a quiescent state.

If the metallic curette be used, great care must be taken to prevent perforating the uterus. It is not necessary to dig down into the underlying tissues of the uterus in removing the products of conception at this stage; by so doing we destroy the entire endometrium, and the accident may happen which has often happened, viz., the obliteration of the uterine cavity resulting from the union of the two raw surfaces of the anterior and posterior uterine wall, thereby doing away with the possibility of future conceptions, and the function of menstruation. Unless great care is observed, the curette is a dangerous as well as useful instrument. The curetting should be confined to the portion of the uterus to which the ovum and placenta were attached. After the completion of this procedure, the cavity should be irrigated with sterile water, and packed with iodoform gauze as a drain, which is to be removed in twenty-four hours, after which carbolized or bichloride douches may be given once a day. The patient should remain in bed at least two weeks after the operation.

4263 Morgan Street.

[Written for the MEDICAL BRIEF.]

Railway Surgery.

BY H. C. FAIRBROTHER, M. D.,

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Railway surgery is not a specialty. It has some things in common with all surgery, yet it has some special features which characterize it. The emergency character of the call is more marked than that which belongs to general surgery. The great force producing the injury makes that injury different from the average one, and the frequent litigation connected with railway injuries mark them from private surgery; likewise the soldier-like life of many railroad men make their treatment a special one.

The advantages of railway surgery, like all corporation surgery, are several in number:

1. To the injured man himself.
2. To the corporation.
3. To the medical profession.
4. To the public, and
5. To the railway surgeon.

The advantages to the injured man are beyond all calculation. Railway surgery is of recent date. One or two decades cover the period of systematic railway surgery. Prior to that time the injured man on a railway was left to the mercies of all hazard. When the railroad man received a wound which badly crushed or mangled the hand, all was chaos with regard to treatment. Nothing was understood as to what should be done. He was probably conveyed to his boarding-house, some one or more physicians were called either by his fellow employes or the keeper of the boarding-house.

Such was the uncertainty of remuneration in railway surgery in former days

that all the better class of surgeons who valued their time and skill sought to escape this practice, and the treatment of the railroad men fell into the hands of those who placed no value upon their time and skill.

In those times no hospital arrangements were enjoyed; the injured man was conveyed to his room in his boarding-house, and probably by the light of a poor coal oil lamp, and the septic surroundings of a dirty room, with no arrangements for proper cleanliness, one or more fingers were amputated, and the hand wrapped up as well as could be looked for under the circumstances.

The consequences of such surgery were easily to be imagined. Not only hands were lost, but lives were lost by such want of preparation.

How different it is under the present systematic arrangements of nearly every railroad in the United States. Now when an accident occurs, within a few minutes the patient is either attended on the spot by a surgeon well versed and skillful in modern aseptic surgery, or conveyed to a clean room, either in the surgeon's office or at the hospital, and everything done that modern surgery is capable of doing to obtain the best possible results.

It is of advantage to the corporation in the same way that it is of advantage to the patient himself. The railroad company is just as desirous of obtaining good results from all injuries in connection with the operation of their road, as the patients themselves. It is important to them that recovery is had at as early a time as possible, with the very best possible results. They desire this not only from a humanitarian standpoint, but on account of the pecuniary loss, as in nearly all these cases there is a financial problem.

It is of advantage to the public, as under the former lax arrangements for the care of the injured, hotels and boarding-houses, and all who contributed in any way to the care of the railway injured were very liable to obtain no return. There was no understanding with regard to responsibility in whatever was furnished, and when all was over, the injured man generally settled with the railway company, receiving the amount of his settlement himself, and his board bill and damage to room, drug bills, and all other accounts in connection with his injury were usually left unpaid.

It is of advantage to the general profession in this, that all members of the profession are not railway surgeons. The profession of medicine and surgery is gradually divided up into specialties. It is only along these lines that progress is made. For example, in a city of twenty physicians there may be but one or two who have skill in, or care to practice railway surgery. It is of no advantage to the man who devotes the greater portion of his time to obstetrics or gynecology to be called to attend a railway case. He is not prepared for that kind of work, and has no taste for it. But under the present system, men who have an inclination for this emergency kind of work, and who are not unwilling to make all the various preparations required therefor are the ones who do the work. Thus by a proper division of labor the profession is benefited.

The railway surgeon himself is the recipient of many benefits. The majority of railway companies remunerate the surgeon equal to the average fee bill rates. In addition to this, transportation is generally given, not only the railway surgeon himself, but to his family. Also it is a matter of much prestige, especially to the young surgeon starting in life, to be accounted in his community as one selected by a railroad company to perform their surgical work.

500 North Tenth Street.

[Written for the MEDICAL BRIEF.]

Deficient Diagnosis.

BY E. R. WATERHOUSE, M. D.,
St. Louis, Mo.

The average physician leaves his college and launches his professional career upon the sea of uncertainties, believing that the wisdom of Solomon "wasn't in it" with him, but soon he runs against obstacles that knocks all of his professional "wind" out of him, and he loses no little faith in medicine. These obstacles are mostly due to a wrong teaching of diagnosis, or more properly speaking, a deficient

diagnosis, because his teacher stopped before he got there.

Why do we diagnose a case? Simply that we may know how to treat it. By what means do we arrive at a diagnosis? By taking account of presenting symptoms. Improper diagnosis means improper treatment, then the conclusion must be that the more complete that diagnosis is, the better the treatment will be that is to follow. Many of us are too slow to learn a new lesson, and many of us are prone to say "the devil owns all of the camps but ours," and whatever originates in this supposed camp of the devil should never receive consideration, or investigation from us, while to many "on the fence" it is not quite clear which camp is the property of his Satanic Majesty.

Bill Jones applies to a young physician (I say young physician because they are not so easily offended as the older ones). The doctor says, "Jones, you have the rheumatism." This would be all right so far as to let Jones and his friends know what sort of a disease was "pestering" the patient, if he would only stop there, but he then has named it, and, therefore, closes his eyes and ears to any farther information concerning his case, but proceeds to hunt a recipe out of his "knott" or some book, which someone has told him is "good for rheumatism," and fires it at the name "rheumatism," regardless of any condition that makes up the disease, and he possibly may hit the "bull's-eye" once in twelve or fifteen times.

To illustrate: We seat twelve cases of rheumatism before us; popular diagnosis decrees the same treatment, because they are all cases of rheumatism, still to carry our diagnosis into more minute details, we find that no two of these cases are alike, and no two of them will improve under the same treatment.

The first of these cases tells us that when they are still, there is no pain, but any motion hurts. Rest and quiet alleviates. Cold aggravates; heat alleviates. In this class of cases, or cases showing this group of symptoms, experience and observation has proven that bryonia is the ruling remedy, and will relieve and cure sooner than any other drug. The pain caused by motion is because the trouble is in the muscles near the joints, and when there is rest there is no pain.

The next case is exactly the opposite in all its symptoms. Cold relieves and heat increases the discomfort. Rest aggravates, while motion relieves. Here we will use rhus toxicodendron, and soon the patient is better. Bryonia will put the rhus tox. case in bed, and so should the rhus tox. be given to a bryonia case.

The next case we find the joints swollen and red. It is an inflammatory rheumatism. Neither heat nor cold, rest nor motion seems to change the continued pains. We will, in this case, give sodium salicylate with the indicated sedatives, and soon we note the improvement.

To the next case none of the symptoms above mentioned will apply. The only thing that we can note aside from what the patient tells us is that all the mucous membranes are light in color, tongue nearly white. Turn up the eye-lid and it is too white, also the finger-nails are too light in color. Here we have a case where the whole system is filled up with the product of fermentation, and we will cure this patient with bi-carbonate of soda. Half teaspoonful in half glass water every three or four hours. Here the soda unites with the free acids, lactic-butric or other, and forming a neutral salt not only neutralizes the acids, but acts upon the kidneys, causing an increase in the solids eliminated, and thereby ridding the system of the offending substance.

Still another case may show this light color of the mucous membranes, but here it is a dirty white color, and an antiseptic in combination with an alkali is demanded, and we cure the case with sulphite of soda.

The next case shows exactly the opposite condition from the one that is cured with the simple soda-bicarbonate, or salaratus. Tongue, lips, eyelids and finger nails all show an abnormal redness. Here the system is lacking in acid, patient craves pickles and sour things. If light red, vegetable acids are called for, and we will give lemon juice, hard cider, etc. If a dusky red, here is a demand for an antiseptic in combination with an acid, and we think of sulphurous acid, or muriatic acid. Or, if there is a purplish color of these membranes, we think of nitric

acid. Put enough of designated acid into a pitcher of water to make a pleasant, agreeable sour, and direct the patient to use it freely.

The next case we find is that some years before he had a disease that he did not get at Sunday-school, and we cure him with generous doses of iodide of potash.

The next case the rheumatic pain is down the back of the neck, radiating to the shoulder blades with every motion of the body. See, here motion increases the pain, and again we think of bryonia, in combination with sticta. Why? Because long experience and observation has shown that sticta acts upon this particular muscular structure, as digitalis acts upon the heart, or juniper berries upon the kidneys.

Next. Here we find a poor fellow with soreness about the soles of his feet. It is a miserable, annoying feeling, that endangers one's religion, there may be cramps about the calf of the legs, that catch him when asleep. If it is a lady patient, at near the change of life, cramps of the legs are almost sure to be there. The remedy is sulphur. One part to nine parts sugar, to be triturated together thoroughly, giving a dose of one grain of this mixture, or equivalent of one-tenth of a grain of the original sulphur. Give this until the patient smells like the breath of an old-time Presbyterian clergyman. Says one, "Why not give a teaspoonful of sulphur?" Simply because sulphur is a cathartic, and passes the patient as pure sulphur, that is, unchanged, as a cherry-pit passes a hen. While in small doses it requires nearly a week for the sulphur to make its round through the system, being changed by the juices into a sulphide, and after going the rounds of the glandular system, is eliminated through the skin. The dose being so small that it loses its cathartic action. A few doses even as small as a fiftieth of a grain each, will blacken a watch in the pocket of a patient, while doses of a teaspoonful will not affect it in the least. Just how this sulphide gas cures these cases of rheumatics we do not know, but sulphur being used in the laboratory of the hepatic apparatus, it probably cures by supplying a needed element.

Next. Here the pain is in some of the larger muscles, as a succession of small throbbing aches, cimicifuga. If motion makes pain worse, add bryonia. Or if rest causes more pain add rhus tox, instead.

Next. Here the pain involves the sciatic nerve, and we think of colchicum. If motion increases pain, add bryonia, etc., etc., and so we might go on through twice twelve cases, and no two of them would be treated alike.

Says one hard head, "You are treating symptoms, while we treat diseases," which I deny. Symptoms point us to a closer and clearer diagnosis of conditions. How would we know a broken leg from a toothache, were it not for the presenting symptoms? The belief, almost general with old-time physicians in idiosyncrasies, and that remedies do not act upon all people alike, is almost groundless, like remedies under like conditions influence the system in uniform ways, but different actions of like remedies, is because of our inability to know that the conditions are the same in the one case as in the other. We should study our diagnosis in connection with our remedies, and make our diagnosis rather to bring to mind the curative drug, than to give some arbitrary name to the group of pathological conditions. Don't give a remedy because Dr. Bartholow, or Dr. Wood, said this is good in pneumonia, or in rheumatism. This procedure might have satisfied us a hundred years ago, but now it is too indefinite, carry your diagnosis down to a finer point, and analyze each symptom, until you can almost call your remedies specifics, so sure will you be of the action you are to get. Of course, we do not believe there is any specifics for disease, according to the old system of diagnosis, but there are specifics for certain pathological conditions, and when those conditions continue a disease, their removal cures the whole train of troubles.

The question comes, "Who's therapeutics is this?" It is mine. It is yours, or any one's who has cultivated the art of doing their own thinking, and is no longer a parrot, echoing what some doctor-made saint in medicine has said, in his Physician's Receipt-Book.

Volumes could be written upon this text, and which would convert the prac-

tice of therapeutics into a train of certainties, where we now have a string of very uncertain quantities. The average medical student attends the lectures on *materia medica* solely for the lot of receipts and formulas that he gets, while the teachings should be to fit the drug actions to pathological conditions, which are shadowed out by symptoms, and thereby fit the young physician to make his own receipts from a definite knowledge of the relationship between disease and drug action. I say young physician, because when a physician gets into a rut, it is harder to get him out of it than to get a "nigger" out of a melon patch.

1416 Chouteau Avenue.

[Written for the MEDICAL BRIEF.]

"The Dangers of the Microscope in the Early Diagnosis of Pulmonary Tuberculosis."

BY ROBERT L. WATKINS, M. D.,
New York City.

I have been much interested in an article published last month in a contemporary medical journal by Dr. Herbert C. Clapp, of Boston, entitled "The Dangers of the Microscope in the Early Diagnosis of Pulmonary Tuberculosis." It is very plain to see that the writer of this article has told a straightforward story—the very words seem to breathe the air of honest observation and long and thorough experience. I congratulate him on his paper and his confirmation of facts which have been known by a minority of investigators for a number of years. I doubt if there are very many observers of pulmonary tuberculosis who do not have the same experience as Dr. Clapp, viz., that the tubercle bacilli are often not found in the sputum until there is ulceration or some breaking down of the tubercles in the lungs, and even then the tubercle bacilli are not constant, for a partial healing of these ulcers prevents them from appearing in the sputum.

Dr. Clapp calls attention to the failure of the sputum test, and also the physical examination test in making an early diagnosis of tuberculosis: "They both give us no help at the very time when proper help does the most good, viz., in the early stage of tuberculosis."

"We want to be told when a burglar is trying to get into our house, and not wait until he has ransacked our possessions, and perhaps fatally injured us."

"Again, many people have been treated for tuberculosis who did not have it."

The quotations above are from the pen of Dr. J. W. Moore, who also, in the *Journal of Hematology* of June, 1901, says, "That it should be borne in mind that the lungs are not the clearing house of tuberculosis, and it is beginning to dawn on some of the 'sputum testers' that there is something wrong in their methods, by reason of their failure to detect consumption in the early stages."

Tuberculosis is first visible microscopically in the blood. It has been detected there by the two Drs. Salisbury, the two Drs. Cutter, Dr. J. W. Moore, Dr. Kellogg, myself, and many others, all of whom have practised this method many years. It is a very simple process to take a drop of blood, put it under a low power objective, and observe the products that are deposited in the lungs which help to form the tubercles. These tubercles break down, the bacilli appear, and are coughed up in the sputum. It is very easy to detect the earlier stages of tuberculosis by blood examination, for the condition of the blood shows this before there is any deposit of tubercular matter in the lungs. Paragraphs could be quoted from the valuable paper of Dr. Clapp's, but it would make this article too long, and my desire is simply to point out the fact that tuberculosis is visible in the blood stream, and can be seen there by the general practitioner if he will dust off his microscope, and make a few observations beginning on the most advanced cases. Proof of the above will be forthcoming from any of the above-named gentlemen if desired.

20 West Thirty-Fourth Street.

Please find enclosed check for one dollar, for which continue the BRIEF for 1905. Soon after I commenced to take the BRIEF there was a prescription in it that was worth more to me than twice twenty-five or thirty dollars. I still want the BRIEF.—W. A. SCOTT, M. D., Thomasville, Ala.

[Written for the MEDICAL BRIEF.]

Warfare on Tuberculosis—Lung Excretion and Fermentation as Related to Tuberculosis—The Body Heat and Force—Fat Foods in Their Maintenance for the Prevention of Tuberculosis.

BY THOS. BASSETT KEYES, M. D.,

Professor of Tuberculosis, Jenner Medical College; Chairman of the First Organization Committee of the American Congress of Tuberculosis; and one of the Vice-Presidents at the International Congress of Tuberculosis, St. Louis, 1904; Editor of "The Tubercle" (a journal on Tuberculosis) from 1897 to 1903, Etc.; Medical Director Camp Keyes (established 1900), an Out-Door Camp for Treatment of the Tubercular, in the Piney Woods of Northern Wisconsin, Etc. Chicago, Ill.

[Paper No. 3.]

THE IMPORTANCE OF BODY HEAT IN THE PREVENTION OF CONSUMPTION.

The Excretions.—The excretions of the body are in main carried away through the feces, by action of the intestines, the urine, by action of the kidney, the perspiration from the skin, water and gases from the lungs.

The feces consist mainly of the undigested, unassimilated parts of the food taken into the alimentary canal, while the other excretions are end products of food, after assimilation. Nitrogenous foods are excreted mostly in the urine, while the hydrocarbons and carbohydrons assimilated, are mostly excreted by the lungs, the fats being oxydized, and excreted as carbon and hydrogen.

Excretion of Lungs.—The lungs excrete from six to twenty-seven ounces of water each twenty-four hours, the amount being governed by circumstances and surroundings, such as the amount of air respired, the dryness of the air, for the dryer the air the more water expired; the temperature of the air, for the lower it is the less the amount of water expired, and the length of the respirations, for the air in rapid respirations does not have time to become saturated with the watery vapor. The average amount of water excreted by the lungs is from nine to ten ounces, with some carbonic acid, free ammonia, and a minute amount of organic matter.

Co-Relation of Excretory Organs.—This excretion may vary, according to conditions, and the workings of the skin and kidneys; where the kidneys refuse to work, as in uremia, the odor of urea is prominent in the breath and secretions of the skin; sweetish odor of the breath is also often characteristic of diabetics. If, for any reason, the body is cooled too rapidly, the perspiration and kidney functions are often checked to such an extent that they do not carry off the organic matter which they should, some of which may then be carried off by the lungs. Even anger, strong emotions, and fear may increase or check secretions.

Cold, exposure, want of food, want of sleep, and irregular habits, all tend to weaken vitality, and alter secretions. The conditions of the body as to health, and its reserve store of adipose, and other individual conditions at the time of exposure, may either exaggerate the action of cold or augment the force of resistance. We all know, from personal experience, that when the body cools too rapidly we are very likely to take a "cold," characterized by the formation of mucus from the membrane of the throat, or if more severe, of the lungs, and if the system is "run down," this cold may result in acute disease, bronchitis, or pneumonia, or it may become chronic, and after the lapse of a few months it is very general to find the tubercle bacilli.

Fermentation of Lung Excretions.—The loss of heat which the body sustained from exposure, or lack of heat-producing foods, and which resulted in the "cold," may have caused a condensation of the watery products of the breath, which, because of checked excretion from the skin and kidneys, may have contained more organic material, and given rise to a species of fermentation, or the soil for germ development, and thus, "The condensed aqueous vapor is found soon to decompose, and to contain substances which are of a poisonous nature."—Kirk: Text Book of Phys., p. 283.

One of the first symptoms of "taking cold" is to sneeze; we do this to expel condensed watery vapor, later we may cough. As vapor rises it would be more likely to condense in the apex of the lung, as vapor formed there would not

have as good a chance of escape as if rising from lower in the lung.

As the body has lost heat from exposure, it is likely that the lungs will try to conserve part of the body heat, and not give up as much as when the body has its full supply, and thus it is that the "cold" affects the mucous membrane of our breathing organs, and, unless the body is supplied with sufficient heat-producing energy food, it will not be able to overcome the acute condition, which then becomes chronic, and often tubercular; on the other hand, no acute cold may have taken place before the implantation of the tubercle bacilli, or other germs, but these have found soil in which to grow, because of the lowered vitality of tissues, and lowered heat excretion, the degree and extent of which greatly influence the extent of development and pathology of disease; thus the tubercle may not be inflamed, may undergo cheesy, or fatty degeneration with disappearance of the germ, and thus be expelled, not causing any symptoms whatever, other than the lowered vitality from which the system has been, and previously suffered; the tubercle bacilli may give rise to a wide variation of pathological conditions, from chronic fibrous phthisis to acute, or chronic miliary tuberculosis, and with many phases of resistance, by which the body has endeavored to fortify the remaining healthy tissues, all corresponding to the energy and vitality of the body, which in the lung must depend more than any other tissue of the body upon the amount of heat it is able to give and maintain, since lack of heat, producing a "cold," affects the mucous membranes of the respirating organs more than any other of the body. In the Text Book of human physiology, by Landois and Sterling, 1891, the effects of a sudden change of temperature, from warm to cold, are noted upon rabbits, which, when taken from a surrounding temperature of 35° C., and suddenly cooled, shiver and diarrhea may result. After two days the temperature rises 15° C., and albuminuria occurred, and there were microscopic traces of interstitial inflammation in the kidneys, liver, lungs, heart, and nerve sheaths, the dilated arteries of the liver and lung contained thrombi, and in the neighborhood of the veins were accumulated leucocytes.

It will be seen that the effects of cold upon a rabbit produce many of the pathological changes which are noted early in pulmonary consumption, such as albuminuria, which has been noted as a frequent forerunner of tuberculosis, and which is often associated with poor fat assimilation, while the inflammation of the lungs, and other vital organs, shows how they have become weakened from their lack of the proper amount of heat, which was essential for their health. Though the temperature of the body seldom falls below normal, there are times when it must be able to give out greater heat to maintain the equilibrium of health.

In cold climates the body accustoms itself to the production of more heat, and such people have better appetites for heat-producing foods. If they do not eat such heat-producing foods then they are very much affected by the cold, are thin, anemic, and blue, for the blood then exhausts the elements from muscle and fat to produce the heat and force of the body; even the blood yields its own constituents to maintain the body heat, and, under these conditions, we see why the body becomes impoverished and bankrupt. On the other hand a cold climate is beneficial in the production of a vigorous constitution, and a healthy pair of lungs, providing we live upon a diet sufficient in those foods which supply heat, most prominent of which is fat. If a proper diet, composed largely of heat-producing foods, is eaten, then a cold climate soon accustoms the body to the production of heat, which is essential to the production of a vigorous vitality. Thus Arctic travelers, becoming accustomed to cold, may expose themselves with impunity, and even comfort, to a low temperature that would be attended with serious results in a Southern latitude, where the body had not accustomed itself to the production of heat, and where the body tissues had not accustomed themselves to be drawn upon to supply the heat, as in over-exposure. For this reason, in the treatment of the tubercular I prefer a cold climate; even in the Southern and Southwest States it is found that the tubercular patients

make more rapid headway toward health during the cold winter months.

But if the patient, or man, does not eat sufficient of the heat-producing foods then a cold climate is detrimental. If he wishes to be well as to body and lungs he must train his appetite to the use of heat foods, otherwise the paralyzing action of intense cold leads to diminished vitality of all body elements, making them liable, particularly, to such diseases as affect the respiratory tract, and this is the chief cause which furnishes the soil for the production of tuberculosis.

Further Importance of Bodily Heat.—From the moment we are born, wrapped in our swaddling clothes, until death, all efforts to preserve health are first and last directed to prevent taking cold. Our first efforts to preserve the heat which the body produces is by clothing, a place of habitation, and by external heat; unconscious as to results, and the workings of the great human machine, most, or all people with chronic lung trouble are poor firemen, they do not feed themselves properly; while they may eat plenty in quantity, and supply their trained, pampered appetites, they do not eat sufficient of the heat-producing foods, which are so important to maintain the vital functions of the lungs, their force and resistance against disease.

The effects of heat applied externally are partly known, and often applied in every household, in the form of hot flat-irons and plates, or stones, and modernly by the hot-water bag. The use of heat by machines for its high development up to 400° F., applied to affected parts, I have used with most beneficial results to relieve pain and swelling after dislocations, and to produce rapid healing of fractures. That heat applied externally is of great therapeutic value in many cases, that proper maintenance of body heat by sufficient clothing and habitation is one of the primary essentials for the cure of disease, is apparent. That the maintenance of even bodily heat is important to life, we have evidence in the incubator, and that in the reduction of body heat there is corresponding reduction of vitality, and even before the temperature of the body is reduced there is deficient vitality of organs, noticeable principally and first, in the respiratory organs.

If the body heat is not maintained at an even temperature it is due, in the case of fever, to diseased conditions; when the temperature is lower than normal we find lowered vitality, and conditions favoring the development of disease; the body may react and produce fever in its endeavor to rid itself of the pathological disease, but in this case its source of heat is usually drawn from the tissues, at their expense, which must waste and diminish in size; since proper food has not supplied the heat, it is not likely that the patient has any fat tissue upon his body, or it would have been drawn upon to supply the necessary heat and vitality, which would have overcome a reasonable amount of exposure. When a person eats a proper amount of heat-producing foods he is better enabled to ward off disease from his own source of body heat and vitality; when this food is not needed by the system it is stored up as fat tissue for a reserve fund of fuel upon which the body may draw if for any reason the person should be over-exposed. By its own thickness it also protects the heat of internal organs, and the body.

ADIPOSE TISSUE THE STORED FUEL OF THE BODY.

Healthy and Unhealthy Adipose.—Every well-nourished person should possess enough adipose to be plump, for adipose tissue is the stored fuel of the body, and a protection, the least of its uses being to protect the more vital tissues from cold, and thus from their own protected vitality, preserve heat and health. It is a great reserve fund stored, from which heat, energy, and consequent vitality may be drawn, and upon it is dependent greatly the force and resistance to disease of all organs, and more particularly the lungs. It is as easy to fatten men as it is animals; the secret lies in a proper diet, but the fat tissue which protects us from disease is that which is derived from fat and oil, rather than that derived from the assimilation of other foods. On account of the construction of fat tissue, and its variation of cell contents, from oily substance to watery, serous substance, we can readily see that the high-

est degree of vitality must come from that which has most substance for the production of heat and force, and the heat and force would not be derived so much from flabby fat, poor in oil, and should it be too watery, then it is often a burden to the body, a drone, requiring to be fed and nourished, and has little to give to supply the blood, which, under these conditions may become anemic. The importance of a healthy adipose, built up from fats and oils rather than other foods, will be better understood when we look into the digestion of fats, and their direct influence upon the blood cell.

Briefly, we may say that fats and oils pass through the intestine with very little change. The white cells are more abundant after a hearty meal, and seem to take up fats, waiting like animals to be fed. The blood varies as to the amount of fat it contains, varying from one-tenth to one-fifth, or even one per cent, and sometimes more, according to the amount eaten and digested. When oils are injected, as I have recommended in the treatment of tuberculosis, the number and size of the blood cells increase. Oils in the blood, whether from digestion or subcutaneous injections, are practically under the same condition. The subcutaneous injections of oil having only this to recommend themselves, that we can give them in larger quantities, and that we know they are absorbed, instead of passing out through the intestine without being absorbed. The healthy man should accustom himself to the use of fats, then they will be digested, and then he will never have tuberculosis.

It will be seen that oil absorbed should stimulate cell activity, and cell nutrition, for oil is an affinity which unites with the cells, and since all of the great theories of immunity, like Ehrlich's, are in main founded upon cell nutrition, it will be seen that the digestion of fats and oils play a great part in the maintenance of health, freedom from disease, and the production of cell activity.

A Healthy Person Should Not Develop Too Much Adipose Tissue.—We should not develop too much fat tissue, but rather a moderate amount of rich fat tissue, thus making ourselves immune from many diseases, providing that we take exercise enough to keep up good muscular strength, and breathe deep enough to carry on a sufficient oxidation and transformation of fat tissue. It is agreed by the best authorities on obesity that it is not a disease until it reaches such proportions as to interfere with the circulation. We often see men engaged in sedentary occupations who have become so adipose, and consequently heavy that their undeveloped muscles become tired very easily when more than their customary work is performed, because of the great weight of fat which they carry, and because of their unusual work, and this we observe more particularly in those whose fat is built up more largely from farinaceous foods, and the flabby, watery, beer fat, rather than those whose fat is built up from fat and oil foods, and, as a consequence, rich in oil, and firm.

If we wish the greatest protection to our lungs a moderate amount of adipose development is desirable, but we should never allow the adipose to develop to such an extent as to become a burden, and a tiresome load to the system, for when once developed we cannot reduce it without great caution, or health will be interfered with. If the diet is too meagre, and the exercise too great, then gall stones may develop, and as the oily or watery part of the fat tissue only is reduced, leaving the connective tissue, or atrophied fat tissue, as it is called, the fuel from our storehouse becomes greatly reduced. It would have been better not to have allowed the fat tissue to have over-developed, which could have been done easily, when sufficient adipose had been developed, by breathing properly, and with moderate exercise. On the other hand, when the lungs become once chronically diseased, we need have no fear of over-development of fat tissue. Fat and tuberculosis are antagonistic, and directly opposite conditions prevail. If the tubercular patient becomes sufficiently nourished he becomes well. If he had eaten sufficient of fat and heat-producing foods he never would have had tuberculosis; therefore, when the lungs once become chronically diseased, or tubercular, fats and oils must be crowded to the greatest extent. To do this requires considerable experi-

ence, the fats must be disguised in rich dressings and bastings for meat, while foods devised for the amount of butter which they will disguise, with other foods which aid their digestion, must be given, and thus prevent, by their mechanical action, the too rapid passage of the fats from the intestine, and, consequently, their absorption and utility lost. I mention this relation of fat foods and fat tissue in the cure of diseased lungs that we may see its importance in maintaining healthy lungs.

Heat of the body should be maintained by the heat foods which we eat, in order to protect the tissues, and not cause too much bodily transformation of fuel foods, and that we may conserve the foods for other tissue demands, we must also wear clothing sufficient for the climate in which we live. Warm, dry feet are one of the essentials of preserving the body heat for the increase of vitality instead of warmth, and the importance of proper protection with clothing, that the heat of the body may go to maintain vital action in both mind and body, instead of being spent to maintain heat lost through evaporation, is very essential in the preservation of health, the prevention of malnutrition, and misappropriation of body nutrition, the prevention of catarrhal diseases and tuberculosis.

92 State Street.

[Written for the MEDICAL BRIEF.]

Roentgeno-Therapy.

BY GEO. H. WHITE, M. D.,

Assistant Lecturer on Rectal Diseases; Assistant Didactic and Laboratory Instructor of Operative Surgery, Kentucky School of Medicine; Operator Roentgen Ray Laboratory, Louisville, Ky.; Assistant Operator of J. T. Dunn X-Ray Laboratory. Louisville, Ky.

Having treated some hundreds of cases with the X-ray, both for myself and other physicians, I feel at liberty to approach the subject from a practical point of view.

The X-ray, like every other therapeutic agent, has its indications, dosage, and manner of application, or administration.

To find the diseases or conditions especially susceptible to the influence of the "rays," have taken much experimentation, its possibilities in many diseases being, as yet, unknown. I champion the effectiveness of the "Roentgen rays," not only in many superficial lesions, such as epithelioma, lupus, rodent ulcer, eczema, seborrhea, acne, acne rosacea, hyperhidrosis, hypertrichosis, angioma verucca, nævus, sycosis, favus, lentigo, and many other diseases of the skin and appendages, but also in many conditions which are deep seated in origin, such as carcinoma of the breast, stomach, and liver, catarrhal inflammation of the uterus, tubes, and ovaries, stomach, and liver, splenic leukemia, neuralgia, especially sciatic neuralgia, many tubercular infections, adhesions of the pleura and appendix, Hodgkin's disease, deep-seated ulcers, such as ulcer of stomach.

To my mind it is the *failure* of the physicians (who are decrying the use of the X-ray in these affections) to recognize the correct dosage of the light, for I find that the majority of patients coming to me, who have previously tried the X-ray without effect, show conclusively that the X-rayist who formerly had these cases was too conservative, or disregarded, or was ignorant (in giving his treatment) of: (1) Idiosyncrasy, (2) accumulative action, (3) limitation of area wished exposed, (4) condition of the tube vacuum, (5) the so-called reaction, (6) time and distance of exposition, (7) application of suitable dressing.

Idiosyncracy.—A reaction is produced in some patients in five sittings, which the same tube, same distance, same time, failed to bring about in eighteen treatments. Blondes get reaction quicker than brunettes.

Accumulative Action.—This usually is avoided by carefully noting the first symptoms of reaction, and then diminishing the time and increasing the distance, so as to get the desired effect, or by withdrawing the treatment entirely until the reaction has subsided.

Limitation of Area Wished Exposed.—That part of the surface which might be influenced by the rays, and not wished exposed, should be covered with sheet lead, which is pliable, easily cut into masks of any shape and size, and, being not over a few lines in thickness is not disagreeably heavy.

Condition of the Tube Vacuum.—It is necessary to remember in regard to this that superficial lesions require a soft tube (low vacuum), while the deeper-seated conditions require a hard tube (high vacuum), graduating this to medium soft, medium hard, as the condition demands.

Reaction.—This is characterized by heat, redness, swelling, and pain in the proportion in which it is produced; its pathology seems to be identical with the ordinary "frost bite," and is a very valuable symptom to the X-rayist.

What beginning salivation is to the physician giving his patient mercurials, and what lacrymation and coryza is to the doctor in giving the iodides, so is the reaction to the X-rayist.

In looks it is the same as "sunburn," and, as far as the patient is concerned, feels the same, unless pushed too far, then it is that language fails description.

The time and distance of exposure varies with the particular pathological condition to be treated; for example, for removal of superfluous hair, the time of each seance is at first ten minutes, the distance three to five inches, gradually shortening the time, and increasing the distance as the symptoms of reaction make their appearance.

For deep-seated diseases, like chronic inflammation, or carcinoma of the stomach, the distance should be ten inches, time ten minutes, fifteen minutes or twenty-five minutes to the seance, as the X-rayist sees fit.

Suitable Dressing.—The best dressing I have found has been none at all. Vaseline gave me bad results, while mutton suet, and other unguents are negative.

I am experimenting along this line at the present time.

The report of a few cases may be more convincing to those who think the X-ray "a fad," "a fake," or who are skeptical as to its ability to cure disease.

Case 1.—Epithelioma. Mrs. Morris H., age fifty, residence 1512 West Maple street, Louisville, Ky.

Epithelioma situated near the hair line on back of neck, about the size of a silver half dollar; starting as a wart ten years previous, it became frequently ulcerated, due to the irritation caused by wearing standing collars; at length the growth breaking down, and taking on epitheliomatous characteristics, finally becoming so abhorrent to the patient that she sought me for treatment.

Two series of eighteen treatments, each time ten minutes, distance three inches, medium soft tube, brought about a cure, which, up to this time, almost a year since, has not reappeared.

Case 2.—Hypertrichosis. Miss Maggie Corchoran; residence, 1026 West Jefferson street, Louisville, Ky. Previously treated by Dr. C. (an X-ray specialist in this city), without effect.

Three reactions, covering a period of six weeks, removed every hair from her face, which had been from three to five inches in length, and which gave her the appearance of "a bearded woman."

Case 3.—Acne. Mr. J. C. B., 2120 Magazine street, Louisville, Ky. Acne over forehead, cheeks, and at corners of mouth. Then five-minute daily treatments; extra soft tube; distance four inches; produced a reaction, after which all disappeared.

Case 4.—Eczema. Baby S., 2427 Bank Street, Louisville, Ky. Eczema involving entire face and neck, eyelids closed and matted together. A pencil point could not be placed upon a non-eczematous area. Twenty treatments of three minutes each, distance eight inches, sufficed to clear the skin of eczema.

Case 5.—Ovaritis. Mrs. B., Twenty-eighth and Madison Streets, Louisville, Ky. Intense pain in ovaries, with usual train of symptoms following this condition. Thirty exposures, hard tube, fifteen minutes each, brought about a lasting cure.

Case 6.—Catarrh of stomach. Mr. S. G., soda dispenser at T. P. Taylor's drug store, Third and Jefferson, Louisville, Ky., relieved and cured, after thirty-three treatments with the hard tube; distance, ten inches; time, ten minutes, for each seance.

Why multiply cases?

I invite investigation, especially in regard to the deeper-seated diseases: Splenic leukemia; valvular lesions of the heart, due to vegetations, which the X-ray will remove by absorption; cancer in any form, if treated early. Give the X-ray a place, and a high one in therapeutics.

Third and Walnut Streets.

[Written for the MEDICAL BRIEF.]

The Physician vs. The Bacteriologist.

BY ROBERT M. STERRETT, M. D.,
Former Demonstrator of Surgical Pathology, College Physicians and Surgeons, Chicago; Former Attending Physician to West Side Dispensary, Chicago.
Chicago, Ill.

Next to "therapeutic nihilism," which is largely the fruits of our ancient and uncertain *materia medica* preparations, "laboratory pathology," that modern usurper of the place long held by clinical observation and research, is threatening to convert the ancient and honorable "*Ars et Scientia Medicinæ*" into the new science of "Schizomycetic propagation and antitoxic annihilation."

Will that beloved, time-honored character known as the "family physician," with his kindly way of shouldering the sick man's woes (as if he had none of his own), of soothing the restless baby and its sleepless mother as much by his homely sympathy as by his prescriptions, of observing from day to day and generation after generation the little individual and personal peculiarities of his patients that gave him an experience not transferable to written dogma, though of incalculable value in the successful treatment of the sick—will he soon pass away, or be relegated to a position in attendance upon a dapper young man "just home from Germany," with heavy eye-glasses, a Van Dyck beard, a white duck coat, and the interminable array of "cultures," "toxins," "serums," "lymphs," etc., who, without the necessity of losing valuable (?) time taken in acquiring a personal acquaintance with the patient (or with anyone who has, for the matter of that) will make a specific diagnosis for a specific consideration, by isolating from the blood, sweat, sputum, urine or breath of the patient (or his "nearest of kin"), the bacilli already therein contained; or propagate, develop, and later destroy, new species of microbic organisms with special characteristics and nomenclature for such aristocratic and exclusive denizens of socially high altitudes and restricted numbers, who are able and willing to pay for staphylococcic streptococcic, or Anglococcic infection of the most recent and unplebeian brand?

The title of this article is taken from the new work by Rosenbach, translated into English by Rose, and which from the scholarly, masterful, yet, withal, moderate way it is written, will doubtless suggest to the minds of many of our young and enthusiastic members of the profession of medicine, that the bacteriological is not the only factor in the average disease-drama.

The writer can easily remember, when a student under an old-time surgeon preceptor, we had "laudable" pus, and also pus that could in no way be considered as entitled to that distinction, but we had one or both kinds in simple amputations in young and healthy subjects, just the same, by the teacupfuls.

Then came the german (I mean germ) theory, and once we found out that these pus-microbes were making all the trouble, we straightway began to "soak" the microbes, and also the healthiest of tissues even, in a solution of bichloride, sprayed the patient, the operating surgeon, and frequently the "audience" (among whom might be discovered a newspaper reporter who, like "a thief in the night" would steal in) with carbolic acid and water, before, during and after the most trivial operation—if any surgical operation upon the human form divine may be considered trivial.

This was all because we had found out that a few of the many species of fission-fungi caused pus to form in all cut surfaces that were exposed to the atmosphere or something worse. And, with the usual impetuous enthusiasm of the medical novelty chaser, the thing was made absolute, overdone, and many patients poisoned as much by the "bichloride" and "carbolic" as by the nimble ubiquitous micrococci. This brought about its inevitable reform —the more common sense conservative practice of simple but complete cleanliness, which, we are informed, is next to Godliness.

That the total causation of all diseases is the total of bacteriological activity is not proven by any manner of means; but that this dogma has, or is about to, become the ground work on which certain modern leaders in the profession seek to construct the newer medicine, is evident on all sides. This, too, in face of the

fact that normal, healthy individuals are known (even to the laboratory pathologist) to harbor in their systems from time to time the bacilli of pneumonia, tuberculosis, diphtheria, typhoid fever, etc., without succumbing to the disease of which these bacilli are held to be the cause—the demonstrated cause, in the laboratory.

There is no more impregnable logic in medical science than this. The fact that, of two individuals harboring the pneumococcus in their blood, one is taken down with pneumonia, while the other is not, proves conclusively that the bacilli alone are not the sole cause of the disease-drama which, in its entirety, trained clinicians recognize as pneumonia.

There are other factors that demand attention, and which the successful physician is on the alert to recognize and control. But that members of the profession finding disappointment in the results of our redundant, though uncertain, *materia medica*, with its long list of drugs with their unnecessary variety of official preparations; their arbitrary and unscientific dosage; the text-book, and, therefore, "authentic," though none the less senseless, because inflexible, interval at which a given remedy must be administered, have tended to "therapeutic expectancy," or nihilism, is doubtless true. For this reason, too, many worthy members desirous of healthy professional activity have decided that some progress in the way of definite diagnosis would be worth striving for, even if our therapeutics are in such an indefinite, unsatisfactory state.

In a word, it is part of "a good thing" to be able to place the sick man in a definite, categorical, diagnostic pigeon-hole, even if we are bound to admit that our old-fashioned galenical, and new-fashioned coal-tar remedies are too uncertain in their action, to get him out.

But, the laity have caught the infection—not of half the microbes that are afloat, but of the fad, and Heaven knows where it will lead to. We have antiseptic barber-shops and barbers, antiseptic face powder, antiseptic soap, antiseptic dentifrices, antiseptic foot-powders, antiseptic cooking utensils and dishes, antiseptic hose, underwear and bath brushes, chewing gum and headache powders—shall we soon have antiseptic cooks and coachmen? It does seem that the young physician who does not happen to become inspired, early in his career, with the belief that he was ordained by Providence to be a surgeon or gynecologist, is dead sure that he will shine as a bacteriologist, have all the diseases to which flesh is heir, bottled, boxed or test-tubed, as to their bacillary causation, labelled and numbered from Alpha to Omega, so that when he does get a case he will have the whole thing down absolutely, scientifically, schizomycetically cock-sure as to leave no room for guessing along the lines of such old-fogy methods as symptoms, physical signs, or such shadowy intangible things as temperament, mental habit and environment, on which to base his diagnosis.

Yet, there are a lot of distressingly independent, irreverential, unconventional fellows in the profession who insist on going right at a case that looks ever so much like pneumonia, typhoid fever, croup, or what not, with their remedies, recognizing certain well-known symptoms at once, from which clinical experience has established certain well-known facts as related to important internal conditions. They apply the remedies of accurate therapeutics in such a prompt, telling manner, that, before the bacilli have had a chance to "grow and wax fat" on the "milk and honey" (and soup) of microbedom in the laboratory, the diagnosis has become "obscure"—the patient is on the mend, all of which proves that a good working knowledge of all-around diagnosis and efficient therapeutics is of really more value (as to the ultimate function of the physician) than the scholarly ability to recognize, propagate, develop, tabulate and exterminate all the schizomycetics that inhabit the earth, the air above the earth, or the waters under the earth.

2590 North Winchester Avenue.

Have just received the BRIEF for January, 1905. Have just read your editorials, and think they are the best I have ever read, especially those on medical laws, shams, individualism, etc. I have taken the BRIEF for many years, and can not do without it. Enclosed find one dollar for 1905.—A. C. JAMES, M. D., Cove, Ark.

[Written for the MEDICAL BRIEF.]

Intellectual Progress.

BY B. M. JACKSON, M. D., LL. B.,
Omaha, Neb.

We assemble Parliaments and Councils, to have the benefit of their collected wisdom; but we necessarily have, at the same time, the inconveniences of their collected passions, prejudices and private interests. By the help of these, artful men overpower their wisdom, and dupe its possessors.—FRANKLIN.

It has ever been a mystery to me, and my humble faculties have ever concerned themselves with the solution of the question, why does man lack the necessary qualities in order to be deserving of the esteem he craves for from his fellow-men? That selfishness and envy occupy the seat of reason within, and truth and justice are utter strangers to, most men, is no less real as it is apparent. Because of these unnatural and unintellectual peculiarities, the lot of humanity has been an unfortunate one, indeed. Nature has ordained that man shall be, and in order that he may live, she is constantly creating the wherewithals which sustain life, yet he has to fight for ever so small a fraction of her bounties. Why is it thus? Man has invented language in order to make himself understood to his fellowmen, that all may make intellectual progress lest their common lot shall be more endurable, yet, the office which that language was intended to fill is being corrupted by selfishness.

Even single words do not mean what they were originally intended to mean, and a combination of them, besides involving all kinds of ideas, may be construed in every conceivable sense. Few individuals are able to draw out the true ideas involved in a sentence, and still fewer are able to discover the motives underlying those ideas.

Only when man will reach the intellectual stage whereat he can fully discriminate between cunning and wisdom, his lot will be more endurable than it ever was or is to-day.

It is, indeed, sad that our system of education falls short of fulfilling its intended function, viz., to teach everyone to educate himself. Most students on receiving their sheepskins consider themselves "educated," and thenceforward embark upon a business or professional venture. The moment one enters into the field of his chosen vocation, he concerns himself only with matters appertaining thereto. He gives no thought to anything else, and few take as much as a glimpse into matters involved in other fields. Hence most men grow narrow and bigoted. And because of this narrowness and bigotry, men try their utmost to crush one another. Few men give it a thought that Nature has provided room, and constantly creates the wherewithals to sustain the lives of all that live; hence, instead of love for, and justice to, our fellow-men, there seems to be an over-abundance of hate and injustice.

Of course, many readers will question my optimism, and well they may. But, pray, is it not true? Here is a fellow-man, a colleague of our own, who has been practicing medicine for twenty years in Illinois, and, on account of ill health, had to remove south. He chose Louisiana, and on arriving there he was denied his inalienable right to the pursuit of happiness —the right to earn a living for himself and his family. Would the reader regard such attitude on the part of the Louisiana physicians as involving love for and justice to that physician (fellow-being)?

My friend, why delude ourselves? Why not construe the meaning of words and judge conditions in their true light? Let us not deny the fact that the Louisiana physicians who tolerate a law which denies a colleague from another State the right to earn a livelihood, is practically an admission that they have neither love for, nor care to accord him justice. Will anyone suppose for a moment that this physician from Illinois would be less competent to practice in Louisiana than he was in Illinois? I do not entertain such a supposition. It is a sad spectacle to behold, that, while in some countries intellectual individuals are fighting for freedom and independence, and are constantly plotting to overthrow monarchies, oligarchies, hierarchies and plutocracy, as witness Russia, in others, cunning individuals are plotting to establish, and have already created, some of those undesirable and much-to-be-deplored institutions, as witness the United States. Pray, let

us not delude ourselves. Let us forever judge men by their acts, and institutions, as they are. "Deeds talk louder than words," hence, man's acts (deeds) are the only guides to go by.

Witness the constant attempts made by a few cunning physicians to further enslave their confrères, as if the small oligarchies already created in the several States were not enough. I am informed by a physician who is in a position to know, because of his high social and professional connection, that an attempt will be made to enact a federal law regulating the practice of medicine; that as soon as the law will be in force, all physicians will be required to show their papers and pass an examination; that those unable to show their preliminary educational papers, and unable to pass the examination before a Board, to be appointed as the "Washington Powers" may direct, will be denied the right to practice "for the protection of the people." This will, indeed, create a single medical oligarchy, instead of the small ones existing in the several States. Is it not revolting to your sense of justice, however humble, that many who have spent three or four years at a medical college, and a few thousand dollars, and have been trying to build up some kind of a practice, all the way from one to twenty or thirty years, will be denied the right to earn a livelihood simply because a few selfish and cunning colleagues will it so? Of course, they argue that none but "gentlemen" and "true physicians" have a right to practice medicine. But who shall decide what constitutes a "gentleman" and a "true physician?" Will the "Washington Powers" (who will doubtless be a well-fed and aristocratic body of individuals) be able to decide these questions? Please reflect, and answer for yourself, for you may be one of the victims. It is also intended to require a university degree from would-be physicians. Does anyone suppose that such a degree is *prima facie* evidence that the holder thereof is a "gentleman," and fully qualified to become a physician? I, for one, do not regard a university degree as *prima facie* of anything; quite the contrary.

"Eternal vigilance is the price of liberty," and, because physicians have not been vigilant, they have lost that priceless jewel. Of course, an insignificant number of physicians have gained by reason of our losses. The proportion of gainers to losers is about one to nine hundred. And this in a Republic! We clamor for "equal rights to all and special privileges to none" in all departments of human endeavor except our own. We seem to concern ourselves with justice, and denounce in no measured terms those who deny it to their colleagues among other classes. So much so that when the Illinois State Board of Medical Examiners "resolved" that hereafter they will credit a physician coming from other States with five per cent for every five years' practice, most medical "journals" (for want of a better name) have "hallabalooded" about it, and expressed a sort of relief that the time has come when physicians, too, will be accorded justice (?) by their "guardians." Who is the Illinois Board of Examiners? A body composed of seven physicians, who have legislated themselves into existence by methods utterly unworthy of men living in a Republic, if the statements contained in a pamphlet issued by the American Medical Union are true. Inasmuch as the truth has never been challenged, we may take it for granted that it is. So this Board, having no moral right to existence, holds up every physician for fees, and dictates to them terms upon which they will be accorded the right to earn a livelihood.

Victor Hugo was right when he said, "The reigning public monstrosities impose stern obligations on the conscience of the thinker, the philosopher, and the poet. Incorruptibility must resist corruption. It is more than ever requisite to show men the ideal." Is it not revolting to your sense of manhood, however limited in extent, that physicians who have been struggling for an existence, and at all times have been trying their utmost to perfect themselves in some specialty or general practice, should have to appear before a few colleagues who have never proven their qualification, in order to answer technical questions? They will credit him with five per cent for every five years that he has been practicing! Those fellows must be spiritualists. For, if one has been practicing seventy-five

years, he would not have to pass any kind of an examination, and he would be entitled to a license to practice among the spirits. And this is good-fellowship. Is it any wonder that "magnetic healers" are so busy catering to the physical ills of Illinoisans, that one was indicted for obtaining money under false pretenses, because she failed to give an "absent treatment?" Her defence was that she had more "patients" than she could attend to on a certain day.

According to an Illinois medical professor, the income of the average physician is about $75 a month, and magnetic healers who charge $3 a visit, have too much to do. Fine condition! Whence arose this condition? This condition is due to the medical registration laws, which have brought into existence the medical politicians, who have divided the medical profession. The constant quarrels which the medico-political guardians keep up is a permanent capital to the nondescripts. The rank and file in the medical profession of England have finally realized that their guardians—medical council—do them harm, hence they got together and carried the following motion: "That the Medical Council has no right to claim to represent the members of the medical profession (Royal College of Surgeons), and that the members repudiate such claims accordingly.

Need I tell the readers of the MEDICAL BRIEF the evils that are bound to result from the centralization of power? I need not do so, because I know that readers of the MEDICAL BRIEF are the most enlightened members of the medical profession. At any rate, they are men who love, and in due time will fight for freedom, independence, justice and progress.

The subject of "reciprocity" has been agitated for the last ten years, and the few physicians who have been endowed with power to bring it about, will never do it. It pays them better, and they are more secure in their political offices by keeping up petty jealousies within the profession, which keep the profession divided. If all physicians should reflect how destructive the mental weaknesses of selfishness, jealousy and partisanship are to a class of individuals as well as to nations, they would surely rise in their might and say with Voltaire, "Turn down the Monsters." I have not the least doubt that a few medical "journals" (for want of a better name) have been instigated by the medico-political "ringsters" to fight those that speak a kind word in behalf of the brawn and brain in the profession—the rank and file—and are advocating "the greatest good to the greatest number" in the profession. Such is human nature. Alas! The power of intelligence is great, and it behooves liberty-loving and just physicians to enlighten themselves on other matters than those concerned with the practice of medicine. Let us be gentlemen in fact. Let us be true physicians. Let us relieve the mental ills of our colleagues, as we try to relieve those of our patients. Let us grant true fellowship to our struggling colleagues, for, if we would be esteemed, we must esteem.

"Wise were the kings who never chose a friend
Till with full cups they unmasked his soul
And seen the bottom of his deepest thoughts.
—HORACE.

311 Ramge Block.

[Written for the MEDICAL BRIEF.]

Burns.

BY DRS. PENNEBAKER AND TRIPP.
Pleasant Hill, Ky.

(Continued from page 174.)

Prognosis.—Burns involving the internal organs and bones are so severe they generally prove rapidly fatal. A burn embracing two-thirds of the body is necessarily fatal; one involving one-fourth has been fatal.

Extensive burns are serious because we have surgical shock to contend with. We base our prognosis upon the extent rather than upon the depth of the burn. Given the destruction of a considerable portion of the transpiratory tract, or by the suspension of its function, it is grave in proportion. The parts implicated affect the result; burns of the extremities are less fatal than those of the body, and burns of the genitals and lower portion of the body are especially dangerous to life. Burns in females and children of highly nervous organization are grave.

After reaction, the dangers are visceral complications, especially inflammation

about the chest, and duodenal ulceration. Death is immediate, deferred five or six weeks, or generally in five or six days in fatal cases. *Post-mortem* changes in the body have not been determined where death was superinduced by intense pain. Death often occurs before vesication takes place. The red line around a true blister is permanent, and is found on the dead body; true blisters are not produced after death, or only very shortly after. Blisters produced by burns inflicted on the cadaver, contain air generally. However, a blister may form on the dead body as the result of a burn, if the corpse be anasarcous. The blisters on a dead skin become dry and of a horny yellow color.

In burns on a living person, if the skin has not been entirely charred or destroyed, the cutis will present a dotted or pointed redness; after death there is no such effect. This, of course, all has relation to forensic medicine. A *post-mortem* burn by an acid is not distinguishable from a like *ante-mortem burn*, unless a vital reaction has occurred. In cases of suspected poisoning, volatile or organic poisons may be dissipated by the flame, others are not so affected. In a corpse burned or charred beyond recognition, the sex may be determined from the shape of the pelvis, and the age may be estimated from an inspection of the osteology. On the discovery of a burnt body, examine closely to be able to say if there be evidence of cutting or other instrumental injury before death; or, if the wounds are simply mechanical the result of fire. Fractures may be accidental. Burns and scalds, under the statute of wounding, are included among bodily injuries dangerous to life. The cracks and fissures found at times may resemble incised wounds, and it may be necessary to determine this. The adipose tissue may melt and run; the blood vessels may show running across the base of the wound, and the vessels may rupture in deep wounds; further, both classes of wounds may be found together. When the burning of the body is partial, and has probably taken place from a wilful ignition of the clothing at or about the time of death, some caution is required in expressing an opinion—since marks of vesication and a line of redness are not always present in burns during life. When vesication and redness are absent, we have no medical data on which to form an opinion as to whether the burn was ante or post natal.

Treatment.—"The best course to pursue, in case of ignition of a person's clothing, male or female, is first to throw himself or herself flat on the ground, so that the flames, which always ascend, should not be capable of attacking the head and uppermost vital parts of the trunk." The alleviation of pain is the first symptom that will demand attention, and measures to combat the surgical shock. The superficial burn appears to be the most painful. Children especially are prone to stupor, and insensibility shortly supervening, and this should be remembered in using opiates. Anesthesia may be required in making the first and subsequent dressings. If practicable, the clothing may be removed in the tepid bath at 100° F. The bath should be a mild antiseptic solution. The clothing may be burned on, or partially connected with the burned tissues. The warm bath is also a good means for combatting shock, especially in children. This can be modified as surroundings permit. If possible, place the patient upon a water bed; a hard bed should not be used. To treat a burn when large surfaces are exposed requires the dexterity of an ingenious surgeon, the intelligence of a skillful physician, and all the resources of a consummate practitioner.

The burn is first to be protected from the air. If the body is burned, place a layer of rubber tissue over the bed, large enough to encircle the body. It prevents evaporation from the dressing, and wetting of the bed clothes. A layer of absorbent cotton one inch thick, and large enough to cover the burn is dipped in the antiseptic solution, and placed on the rubber; covering this a similar layer of prepared gauze likewise wet, then place the patient on this and envelop with the dressings; keep comfortably warm. Large burns are to be dressed as seldom as possible. Alcohol, locally, relieves the pain.

Bullæ, if large, may be pricked; if small, may be left, as they will quickly be absorbed under treatment. The epithelium is not to be removed, as it acts as a protection to the nerve endings, and delicate tissues beneath. The purification of the wound to prevent sepsis is of first importance. The parts at the time of injury are covered with micro-organisms of all kinds, and the skin is full of them. The organisms are completely destroyed in parts destroyed by the burn, but not so probably in the surrounding tissues. Purification increases in difficulty as the resisting powers of the tissues diminish. The choice of a dressing depends, of course, upon the extent of burn, its depth, the area of surface injured, and the constitution and condition of the patient.

The aim should be to exclude moisture as much as possible, and to absorb the serous effusion as soon as it reaches the surface. If the parts become septic the dressings should be changed frequently, designing to dilute the chemical products of the inflammation, and to prevent the burrowing of pus.

Prof. Gross first introduced as a dressing for burns white lead, of the consistency of cream, applied to extensive surfaces; it brings almost instant relief to the pain.

A saturated solution of picric acid applied on surgeon's lint, moistened, the smooth side to the burn is much praised. This is covered with salicylic or other antiseptic wool, a gauze bandage and splint if required. For a cushion to splints, lamb's wool is greatly superior to absorbent cotton.

Picric acid stains everything yellow more or less permanently. One feature of its use is the alleviation of pain; its action hardens superficial tissues, diminishes exudation from raw surfaces, and the epithelium grows well and quickly beneath the dressing.

Sometimes evidences of poisoning supervene; the urine becomes bright scarlet in color from the presence of picramate of potash; no albumen or urates are found. There are constitutional symptoms, and a papular rash surrounded by erythematous appearance develops. This assumes the character of a symmetrical scarlet uniform eruption, which fades on the eighth day with the subsidence of the constitutional symptoms.

Death is due in burns, it is said, which reach a septic stage, from an animal poison generated by micro-organisms that develop in the eschar. The poison is believed to be muscarin, or something like it. This corresponds in physiological action to the muscarin which occurs in toadstools, and was obtained by Brieger as a ptomain from putrefying fish. The hypodermic injection of atropia is said to negative this ptomain.

If profuse suppuration during the course of the burn becomes unmanageable, the dressing of oakum, changed infrequently, has effected a change in the inflammatory process.

Amputation, the necessity for which may arise after severe burns of the extremities, must be deferred until reaction from the shock.

It is rare to see a severe burn that does not include the different degrees of classification, and regions where the whole skin is destroyed. After deep scarring, horrible deformity is seen. The larger the wound the greater the tendency to deforming contraction as the healing progresses from the margin takes a long time to reach the center. During this time contraction is going on as the granulation tissue becomes vascularized, and undergoes fibrous metamorphosis. The center then becomes deficient in vascularization, under which conditions ulcers heal slowly and imperfectly. The remedy for this is skin grafting, for which the part must be aseptic, and the procedure not too long deferred. In preparing the surface the granulation tissue should be kept dry, free from edema, and the delicate nerve endings protected. All cicatrices will contract, and the quicker the healing the more will they contract. Sometimes quacks undertake to heal burns by bringing their edges together, and the result is fearful cicatrization. These cicatrices affect the deeper structures, and one surgeon incised boldly through an arm cicatrix, and cut through the brachial artery. The result in these plastic operations, for instance the Tagliacotian, are not always so successful as they promise

to be. The flaps wither, and the result is as bad or worse than the first attempt of Nature. Elastic or other extension is often combined with these operations, or used alone for the relief of these deformities. Splints and passive movement are part of the after treatment.

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[Written for the MEDICAL BRIEF.]

In Old Roseau—An Idyl of the Caribbean.

BY WILLIAM S. BIRGE, M. D.,

Provincetown, Mass.

Ramble No. 1.

"My dream is of an island place,
By distant seas kept lonely,
A little island, on whose face
The stars are watchers only."

In the fine old days when the history of the West Indies and the Spanish Main was fraught with romance and tragedy, those islands running in a crescent shape from Trinidad, on the south, to the Virgin Islands, on the north, were known as the Windward Islands. The Leeward Islands were, and properly speaking are, another cluster, lying off the coast of Venezuela from Magarita to Oruba. The Britishers owned none of these, and to make themselves happier, divided their Windward chain and called the northern part the Leeward Islands. This has been the cause of confusion and misunderstanding. When I read of the Windward Islands I do not know to what the author refers; when someone speaks of the Leeward Islands I am at a loss to understand. The changes which have taken place these later years in the time of fast steamships and much going are discouraging to the lovers of old books of travel. It was in the days before the poetry of the deep had been sent swirling astern out of sight by the propeller that the Windward Islands were the Windward Islands. "The glory and the dream has gone," says W. Clark Russell; "the demon of steam has possessed with its spirit the interior of the sailing ship, and from the eyes of the nautical occupants of that combination of ore and wire, that ocean visionary life which was the substance and sum of sea calling has utterly faded. A man is taken from port to port with railroad punctuality. He is swept headlong through calms and storms. The mantle of mystery has been lifted by the hand of discovery, and the superstition and fear begotten of intrusion into the obscure and unknown and the magic that was in them is gone."

But, perhaps, the elimination of poetry from the sea life by the pounding of the steam engine and the swift voyage, is more deplorable on land than it is on the ocean itself. Let us admit that it is. Most likely we shall then be willing to hasten on, borne by the very impolite, but very comfortable, iron steamship.

In no part of the ocean are voyages attended with so much enjoyment as in the Southern Sea, and anything pleasanter, more lotus-bearing, more Eden-like than the Caribbean Islands can hardly be. Deep in emerald valleys, hemmed in by ravine and precipice overhung with towering tree-ferns and the glassy and quaint leaf of the wild plantain, moist with the daily showers that suddenly sweep down like white curtains from the dark and jagged heights overhead, to be as suddenly followed by the hot sunshine of the cloudless blue, until every form of vegetable life springs up and flourishes in a confused plentitude of beauty—a veritable paradise indeed.

In these West Indian Islands you live in a climate averaging 80° F. The air

has no longer any harshness or asperity. It feels soft and bland to the skin. Every breath is healing. You are beside a tinted and eye-delighting ocean, where soft breezes are constant and strengthening; amid lovely scenes of vivid and varied hues, and beneath fair, solemn and deep blue skies, whose brief sunsets are glorious beyond the painting of words, and whose prismatic stars glow like steel when not quenched by the most mellow and brightest of moonlights. The mind partakes of the tranquility of it all, and year by year after you have come away you will look back to those verdant hills, to those palm-bordered roads, to that purple and rosy sea, to those brilliant noons and beautiful nights, to the charming climate, and you will come to understand with the sympathy of experience the answer made me by an accomplished creole, whose acquirements fitted him for higher positions than he could find to fill in the islands, when I asked him why he did not seek more accessible and worthy fortunes elsewhere. "Ah," he said, looking up to heaven all aglow with the morning light, "I can not live away from the tropic sun."

Dominica is the real elysium of the Caribbean Islands. The hand of nature has there disseminated her richest treasures. Pleasure and repose there find the sweetest security.

Let one ascend the mountains back of Roseau, and one can not help gazing with enthusiastic admiration on the beauties by which one is surrounded, on the perfect picture whose loveliness meets one's view at every turn. Below, extending as far as the eye can reach, are the tranquil waters of the Caribbean, glistening in the beams of the southern sun. North and south, the valleys glow in the same life-giving splendor, the mountain springs gushing forth in very wantonness, and the beautiful foliage of the various tropical trees and plants clothing the sides of the mountain and the valley below, beyond which, extending along the water's edge, lies the sombre old town itself. The breezes, redolent with perfume and freshened by the waves over which they are wafted, will bear with them a coolness more than delicious. Nothing is wanting for the perfect unity of loveliness, the natural enchantment of the scene.

Dominica is thirty miles in length by eleven miles in breadth and, owing to its numerous mountain ranges, presents a more uneven surface than any other island in the West Indies. When Columbus was asked by the queen to describe its general appearance, he crumpled a sheet of paper in his hand and threw it on the table. In no better way could he clearly convey his own idea.

This island, like most of the group, is of volcanic formation, but the only active evidence of that character now existing is in the numerous sulphur springs found there, and far in the interior on the almost inaccessible mountain is a boiling sulphur lake, which Ober, in his work on the Caribbeans, described as being from three hundred to four hundred feet in diameter, although no actual measurements have ever been made. Its temperature varies. When Mr. Ober saw it he found it to be 96° F., although when examined some months previous by Dr. Nichols, of Roseau, it was found to be 196° F. Its depth has never been ascertained. Some years ago it suddenly emptied itself, blowing high into the air like a geyser, and destroying the forest for several miles around and frightening the native inhabitants nearly to death. Since that time it has assumed its old proportions. It is safely approachable, but difficult of access, much of the journey having to be performed on foot through a mass of tropical vegetation that would try the patience of a saint, if such an individual were ever to be found traveling through the West Indies.

Far back on the Atlantic side of the island, bordering on the Mahoe River, is the reservation of the Carib Indians, the remnant of a once powerful nation. They number between three and four hundred, and live in a very quiet, peaceful manner. Their chief occupation is making the pannier, or Carib basket, which is much sought after by the natives of all these islands. These baskets vary in size from a small hand-bag to a large trunk. They are made in a peculiar manner, from a reed called Mahoe, and are so tight that they will hold water. They are durable, and with proper care will last for years.

The price varies according to the size, some of the larger ones bringing as much as five dollars. It is seldom that a Carib Indian will visit the towns, and then only to dispose of his baskets and purchase supplies. It is said that there are numbers of the tribe who have never left the reservation.

(To be continued.)

[Written for the MEDICAL BRIEF.]

Preventive Medicine.

BY D. A. BLAIR, M. D.,
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Know thyself; presume not God to scan;
The proper study of mankind is man.
—POPE.

"An ounce of prevention is worth a pound of cure," is an old, but nevertheless true, saying.

As our knowledge of curative remedies increases, the desire for a greater insight, and a better understanding of preventive medicine, has kept pace with, and, in fact, has throughout the ages been the forerunner of all great medical discoveries, so that to-day we find the best brains of the medical world busy in the laboratory and hospital, as well as in the general and special lines of practice, each striving to give to the world some means or remedy by which the suffering of humanity may be not only cured, but prevented.

In the course of these investigations, many theories have been given prematurely to the world, and have been pounced upon by the empiric and quack, and, of course, the results have not been what was expected, and this has led to the general condemnation of many theories, which if carried out and put into practice by men of brains and integrity, would have accomplished much good and prevented great suffering.

In order to be able to discuss the subject of preventive medicine intelligently and concisely, we will treat it from three different view points, viz., legislation, medicine and surgery.

LEGISLATION.

That the propagation of disease can be, and is, prevented by the enactment and enforcement of proper laws, has been recognized from the earliest dawn of history; for instance, when the children of Israel were wandering in the wilderness, in their journeyings they came to the borders of a country whose inhabitants were, no doubt, afflicted with syphilis. Moses, knowing this, promulgated a law forbidding any of the men from going into that country or having anything to do with the female portion of the population, but human nature was the same in days of old as it is to-day, and a number of them evaded the guard (a quarantine) that was placed around the camp, and mingled with the women of that nation and returned to their camp. When Moses learned of this evasion of his quarantine, he ordered that these men be held apart from their wives and sweethearts until the required time for incubation and development had elapsed, and those who were found inoculated with disease were slain. And thus the inoculation of the entire nation with that dread disease, syphilis, was prevented.

From that time to the present, quarantine laws have been in effect; nations quarantining against disease entering their borders from other nations, and it has only been when these laws were not enforced, as during the crusades, that contagious diseases of the most fatal character, such as the black plague, or death, almost depopulated Europe, and nearly encircled the globe with a pall of death and misery which followed in its train.

Each year more is being added to our store of knowledge and experience of the proper workings of the laws pertaining to national, municipal and individual quarantine, and each year we are making greater progress in the stamping out of many of the now incurable diseases, such as leprosy, consumption; and of curable diseases, diphtheria, small-pox, anthrax, etc. Not only in quarantine does the law prevent disease, but also in the many sanitary measures adopted to prevent the production of disease from filth and unsanitary surroundings, such as the inspection and cleansing of the tenement houses in our great cities, and proper sewerage and water supply, and the latter especially has become a very grave problem.

WATER SUPPLY.

We can not but recognize that as the density of our population increases, and as our people engage in new and greater industries, and as the municipal aggregations of population multiply and expand, the original purity of the streams and water basins can not be wholly preserved. Having this condition of affairs before us, let us compare four European and four American cities, and, by comparison, see what can, has and should be done to secure the most potable supply of water, and note the effect on the typhoid fever death rate.

Berlin, procuring its water supply from Lakes Tegel and Muggel, would, according to American standards, be potable in its raw state. It is filtered by an elaborate system at a cost of ten dollars per one million gallons. The typhoid fever death rate in consequence has averaged seven and one-half per one hundred thousand. The average typhoid fever death rate of twenty-eight American cities was fifty per one hundred thousand, or nearly seven times as great. The supply of Zurich, drawn from the lake by that name (hemmed in by mountains, with an area of fifty square miles and a depth of two hundred and fifty feet, is also filtered. The Hague water, obtained from driven wells, is also filtered; the typhoid fever death rate, has, for the past six years, averaged five per one hundred thousand. Hamburg reduced the typhoid fever death rate from twenty-eight to seven and one-half per one hundred thousand by filtering the water drawn from the Elbe.

New York, whose water supply is superior to many of the American cities, had from 1890-1895 an average typhoid fever death rate of twenty per one hundred thousand as against fourteen and one-half for London, seven and one-half for Berlin, seven and one-half for Hamburg, and four and seven-tenths for Rotterdam, all of whose waters are filtered. Chicago, Philadelphia and many other American cities have a still higher rate than New York.

Do not these facts speak for themselves as to what could and should be done in regard to the water supply of our great cities?

We believe that this should be a subject for national legislation, and should be placed on the same basis as a national quarantine, and should not be left to a "city hall clique." If this was the case, Chicago and St. Louis would not be using unfiltered water which can by no possible chance be potable.

SEWERAGE.

The sewerage should also come under national control. We are speaking now of cities of twenty-five thousand inhabitants, or more. In the smaller towns, the following plan would be, at least, an improvement on any we know of now in operation, since we know that the water supply and sewerage is a powerful factor in the spread of microbic diseases. By the adoption of this plan or a similar one, we would prevent the spread of such contagious diseases. The plan would be this:

1. The State Board of Health shall appoint a health officer in each county, who shall be president of county board of health, and represent the State Board.

2. That town councils or commissioners (corporate) shall nominate a local health officer to be confirmed by the State Board, who shall act as local representative of said board and who shall be a member of the county board of health.

3. A county board of health shall consist of the local health officers of the corporate towns in the county, and they shall have charge of the sanitary conditions of said towns and adjacent territory, which shall be platted off according to the ideas of the county board.

4. These officers shall act in conjunction with the town councils and State Board under such regulations as they may determine upon.

5. Every physician shall be required to report each case of contagious disease to his local health officer, who shall see that the case is isolated and the premises quarantined.

6. Water tight boxes should be substituted for privies, cesspools, and earth closets.

7. That hog pens be prohibited in the corporate limits or placed in a sanitary condition and water tight, and elevated above the ground eighteen inches.

8. That all contents be removed from privies at stated times by a public scavenger.

9. That whenever a town council is incompetent to act for any reason, the State Board authorize and empower its local representative to act in the premises.

With these measures properly carried out, and a supply of pure water, we fail to see why those insatiate monsters, typhoid and scarlet fever, should not lose their fatal grasp.

It has been demonstrated that yellow fever can be stamped out by eternal vigilance, as shown in the reports from Havana and the Southern States at present. When we look back to the days when we had no prophylactic sanitary laws, cholera was prevalent in this country, but it is almost unknown to the present generation, simply because proper laws were enacted and enforced and the people have become educated to such a point that they appreciate the benefit of such laws, and are anxious for their own safety and, as a result, see that they are enforced.

PURE FOOD LAWS.

A nation is strong physically and mentally according as the people are nourished by the proper kind of food, hence, the food supply is a very important factor in the production or prevention of disease. There is plenty of pure food in nature to feed many more millions than the present population of the world. We should insist on getting it pure, and in obtaining the enactment of laws that will put a stop to the greed and malpractice of unscrupulous dealers, who under the pretence of cheapening an article, or stimulating its demand, or preventing it from spoiling, slowly poison the people, thus undermining health and energy. Our legislators should take for their motto and watchword, "The health of the people must be the supreme law."

Who can tell how many infants have been starved to death by the use of condensed skimmed milk? This milk, when skimmed, is deprived of the fats which are the essential elements needed by the child in its growth during the first and second years of life. It is simply a "slaughter of the innocents" by slow degrees for the purpose of gain. The parents feed this milk to the child, not knowing that it lacks the very element which is necessary to the well-being and growth of the child, and if, unfortunately, the child should survive, he is enfeebled by a rickety constitution and his future is blighted.

Now the same might be said of many of the other food products, as flour, meats, spices and extracts. We think that a certain amount of preservatives are necessary, but who shall be the judge? The packer? Certainly not! For he is interested in the profits of the business. Take for illustration the article on the market known as canned roast beef. According to the testimony of the men most interested in the manufacturing and preserving of canned goods, the pure food commission is told that it is made by first boiling and abstracting a large per cent of extract. Then this beef residue is put in cans and subjected to high heat in retorts, that being said to be the roasting process.

This beef is unfit for food, as was shown by Prof. Subig when he published the Process of the Manufacture of Extract of Beef. He called attention to the fact that the extract did not represent the nutrition of the beef, and warned the medical profession against falling into the belief that it would be a substitute for the beef itself; that while the fibrin, which is the strength of the meat, is chemically the same as the albumin of the egg, it does not represent the nutrition of the beef, while at the same time its digestion and assimilation is dependent upon the presence of the substances represented in the extract, and even though these substances contain all the nutritive qualities of beef, they should not be used singly.

Almost every State in the Union has pure food laws, and these are supplemented by those of the United States, but the trouble lies in the fact that there is no uniform standard by which to test these foods. It is like enacting a law prohibiting anyone from doing evil and allowing each individual to be his own judge.

A national standard for all food products should be given, and any falling below this standard should not be allowed,

under heavy penalties. In this way only can we secure pure food and prevent many intestinal and digestive ills.

TUBERCULOSIS.

We believe that that scourge of civilized mankind, tuberculosis, can be, to a greater or less extent, eradicated and prevented by proper legislation and isolation. When the people recognize the fearful infectiousness of this disease, laws will be enacted providing for the isolation of those in the advanced stages, where treatment will not avail; and for those in the incipiency, isolation and treatment. We believe this should be done, for while tuberculosis is not as rapid in its action as small-pox and many other contagious and infectious diseases, still statistics will show that it claims five victims to the others one. Tuberculosis is being dealt with in various ways, there has been much more learned in regard to the prevention and cure than has been put into practice, although enough has been done to substantially check, if not materially diminish its progress. A step in the right direction is being taken in some of the States where sanatoria are being maintained for those afflicted with this disease. What is lacking is more thorough and complete exclusion from public gatherings; and greater care should be exercised in regard to expectoration in public conveyances and on the streets.

(To be continued.)

[Written for the MEDICAL BRIEF.]

Teach Us How to Think.

BY L. L. LOGGINS, M. D.,
Willis, Texas.

Man, by virtue of the specialization of his creation, is endowed with the power to think. Then, it follows, it is his duty to think. Properly educate and train him, and he will think, and no man should avail himself more of this faculty than the physician. Every day of his life is this function called into active exercise, or ought to be.

When we come to treat any specially named disease, let us go back to the principles of mathematics that puzzled and worried us in the school-room, for here in the realm of medicine we need more than ever to thoroughly understand the law of cause and effect, and until we pursue this study to the end of all its ramifications we shall constantly meet disappointment, laughing at our blunders, arising primarily from inattention.

The young practician (I like practitioner the best) begins the work of his chosen profession, strong in the belief that his *alma mater* has furnished him with an armamentarium as effective as that which the Japs are training upon the Russian hosts. He believes implicitly in the truth of the lectures he has heard, and the text-books he has read. These, to him, are all-sufficient, and while this is a fallacy, I find that it clings to some men like the Old Man of the Sea, until the frosts of multiplied years have whitened their locks, and the corrugations of time have disfigured the faces that were illuminated in the amphitheater by the wreaths of rhetoric the old professors threw over their heads. This, of course, comes of a failure to think, classify and analyze, a failure to utilize the engines of power and strength set at their disposal by the benign and friendly hand of the Creator, a failure to grasp the experience of the ages and weave it into a web of success.

We older men of the profession have learned to read between the lines; we read a text-book and learn from it whether or not the author is a broad-gauged man, reaching out over the face of the earth for the data of comprehensive experience to serve as the foundation of his structure of conclusions, or has merely treated his subjects as seen and understood by himself, within the circle of his own practice. We do see this in the books; we see it in the articles that adorn the pages of every journal that comes to our desk.

This way of thinking leads to an arbitrary disposition, and a routine practice, which leads inevitably to the haven of mossbackism.

Dr. O. W. Holmes once told the members of a graduating class that they would begin the practice of medicine with twenty remedies for every disease; that at the end of twenty years they would have one remedy for twenty diseases. This is about the experience of men who have been in the harness a score of years.

What is the remedy? In the very beginning the young man should be made to understand that the disease as expressed in the patient he is called upon to treat is a law unto itself, and that geography has a great deal to do with the maladies that scourge mankind. For example, we older men know as well as we know anything that is worth knowing that while malarial toxemia is found all over this continent, that its expression is not the same in New York or Colorado that is found in the swamps of Mississippi and Florida, hence it is impossible for the treatment to be the same. I often see a treatment laid down in a text-book or journal article, and recommended as a catholicon that would be of no more avail here than the throwing of salt in the fire to stop the sad notes of the screech owl a half mile away. But I do not call into question the ability and truthfulness of the writers, they may be, and, doubtless, are right, so far as their locality and practice are concerned. The truth is, each one of us who thinks is making text-books every day.

Here we have "slow fever," "typho-malarial fever," and typhoid fever. Do we? Well, now, we know that this locality is not properly within the typhoid zone, and we have learned that "typho-malarial fever" is a bad name. However, we know that we do have typhoid fever here, as proved by the *post mortem* phenomena. We know, also, that scarcely a fever attracts our attention that is free of the periodic manifestations of malaria. We have, also, found out that malaria does not always manifest itself by chills, etc. It appears in many forms that would require a lengthy article to make plain. Now and then we find a subject with no fever. He has lost appetite, is "all broke up," and presents all the evidences of acute mania. Maybe his family and friends have considered him "crazy" for weeks. So he is, but a brisk course of anti-malarial treatment brings him around all right.

Yes, the older the doctor grows the less medicine he gives. He, after a while, learns that when you once get the glandular and absorbent system into vigorous action you have accomplished most of your labor. Then you are ready for "tonics," and by this time you have learned that good, well-cooked food is the *sine qua non* in the field of tonics. Is not this so, "Old Doc?"

Man's normal condition is a state of health, consequently give just as little medicine as possible to bring the abnormal man back to his proper standard. Then stop. We all know that, as was once said by an old medical teacher—Wood, perhaps—that nineteen cases out of every twenty of sickness tend to recovery. Then let us remember that rest—especially for the stomach—is one of our chief arms of offense and defense, and I wish to underscore this with reference to the summer complaint of children, for I do firmly believe that more people are killed by overfeeding than famine ever slew.

While I am talking about "thinking," I wish to commend the course of the MEDICAL BRIEF along this line. The BRIEF is a thinker, and a pretty free thinker at that. By this I mean that it, knowing there is good and evil before all men, is willing to be painstaking in the delivery of its own opinion, but in nowise dictatorial; especially is it opposed to making men think by statute. In this it is eminently correct, for you can no more make a man think right by the enactment of a statutory law than the fiat of this government can make a genuine gold brick out of the numerous spurious kinds that are daily sold to the public.

The BRIEF is broad and liberal in all of its departments, and sufficiently ethical to meet the demands of the times. If a man's education and conscience do not construct for him a code of ethics, no legislative enactment can. A man is created a gentleman; no law can make one of the "chub."

As to proprietary medicines, I have to say that they certainly fill a "long-felt want" in the office of the country doctor. Take many of the preparations of the manufacturing chemists that could be named, who would be without them that knows their value? It may be different with the city man, with complete drug stores and fine druggists at hand, but out here in the country towns, the splendid preparations of the manufacturing chemists and pharmacists fall like quail and manna did in the fleeing hosts of Israel.

Consequently I can see no valid arguments in the "marked" copies of some of the journals I have received, bristling in their attacks on the BRIEF.

[Written for the MEDICAL BRIEF.]

Case of Cancer of the Breast Treated Successfully by Medicine.

BY ELI G. JONES, M. D.,

New Brunswick, N. J.

My object in reporting this case is to get the profession interested in the medical treatment of cancer. I have made a special study of the medical treatment of cancer—both external and internal—for thirty-six years. During that time I have treated all forms of cancer from twenty-five States of the Union. I have always considered cancer as a blood disease, and that to cure it we must reach the disease through the blood. The fact that I have cured cases of genuine cancer fifteen and twenty years ago, and there has been no return, proves that my theory regarding this disease is correct. The medical profession have for many years regarded cancer as a local disease, and have cut out everything that looked like a cancer. As the mortality from cancer is gradually increasing we must conclude that the knife is not a cure for the disease. A surgical operation is purely mechanical. The surgeon can only cut out what appears under the naked eye, while thousands of the cancer germs are multiplying in the blood. In August, 1890, a lady came from Washington, D C., to the cancer hospital in New York, sent there because the doctors in that city did not care to operate on her. She remained at the cancer hospital about three weeks, and was pronounced past being cured by the doctors of the hospital. About that time she was removed by her friends to a private house and a physician called to see her. He called me in consultation. I found a lady about fifty-one years old, confined to her bed with a scirrhus cancer of the right breast. The cancer occupied the whole of the breast and was broken open in the middle of the gland. The lymphatic glands in the axilla were swollen quite large, and also a swelling on the right side of the neck; her general health very poor, no appetite, weak heart, and suffering from pain from the cancer. Notwithstanding the very unfavorable prognosis of all the other doctors who had examined her, I gave it as my opinion that she could be cured. Locally, I applied to the breast:

℞ Ext. Conium.....
Ext. Hydrastis Can.....
Ext. White Oak Bark..... } equal parts.

M. Sig.: Spread it on a soft cotton cloth and apply it large enough to cover the cancerous tumor. Apply the new plaster every twenty-four hours, the plaster to act as an absorbent to the swollen glands under the arm,

I applied solution iodo bromide calcium, full strength, on lint, keeping the lint wet with the solution. I also applied the same to the swelling on the side of the neck. Internally I gave her

℞ Co. Syr. Trifolium.....1 pint.

M. Sig.: Teaspoonful after each meal, and a five-grain pill of quinine before each meal. To give her rest at night I gave her tincture passiflora in teaspoonful doses.

The above treatment was followed up for about three weeks, as I wanted her to get strong enough to bear the active treatment to remove the cancerous growth. In three weeks her general health was very much better, the cancerous growth not so large, and the glands in the axilla softer and not so large. We now decided to remove the growth from the breast. Locally we applied a plaster of

℞ Saturated Sol. Chloride Chromium.
Saturated Sol. Chloride Zinc.
Alcoholic Ext. Mandrake.
Pulvi Blood Root.
Of each sufficient quantity to make a thick paste.
M.

This was spread on a cotton cloth (white) and remained on twenty-four hours; then another one applied until five had been applied. When the last one was removed the growth was hard, like sole leather, and felt very heavy, like a dead weight. We began poulticing the growth with pulverized slippery elm bark and hot water mixed for poultice, to be changed every two hours. To sustain the heart's action we gave her cactus grandiflora, once in three hours. In a week the growth came out on the poultice. We poulticed it a few days to encourage the discharge of cancerous matter, then applied the following ointment, once in twelve hours:

℞ Burgundy Pitch .....1 ounce.
Beeswax.....1 ounce.
Olive Oil .....1 ounce.
Mutton Tallow .....1 ounce.
White Pine Turpentine.....1 ounce.
Cosmoline.....5 ounces.
M.

In about six weeks the sore was all healed up and the cure of the cancer was permanent.

In the treatment of cancer I have no stereotyped treatment, but treat each case according to the indications that I find existing in that particular case. This has been the secret of my success.

Any doctor who starts out to treat all forms of cancer with one form of treatment will fail, as hundreds of others have in this country. The treatment of cancer is a specialty, the same as the eye and ear, or gynecology, and a man must make a business of the study and treatment of all the different forms of the disease, and he must remember that there are no two cases just alike. About fifteen cases out of one hundred are hereditary. In every State and country where vaccination is compulsory, there you will find cancer on the increase.

[Written for the MEDICAL BRIEF.]

Causes.

ANNIE K. BAILEY, M. D.,
Danbury, Conn.

Hay Fever, Etc.—The microscope has revealed in the nasal excretions of persons suffering from epidemic influenza, the irritant to be infusoria resembling epithelial cells, with cilia, which exhibit very active movements. They are identical with those derived from the water in lakes, ponds, or stagnant water. These should always be sought for in ascertaining the cause of epidemic influenza, some forms of asthma, and hay fever. They are effectually destroyed by local applications with sprays containing carbolic acid, and an alkali, as Dobell's solution.

Cancer.—Cancer is declared to be the result of eating flesh food. How? An animal reaches its maturity in about three years; man reaches his true maturity at thirty years of age; rapidly growing cells being imposed upon slow-growing cells proliferate as a result of some irritant, mechanical or otherwise, and degenerate with attending consequences.

Disease.—The direct cause of a whole class of diseases is a deficiency of the normal chemical constituents of the different tissues of the body from the normal source of supply, as decreed by the Creator for the safety and well-being of the creatures whom He had formed of the dust of the ground. It is written: "He causeth the grass to grow for the cattle, and herbs for the service of man; that He may bring forth food out of the earth." The scope of His provision lies in grains, vegetables, fruits, etc., which contain no cancerous possibilities. The foundation of skillful medical practice lies in a knowledge of the predilection of certain elements to certain tissues. For instance, the predilection of copper is invariably to the brain and abdomen, manganese is a peculiar element of hemoglobin, arsenic maintains the normal standard of red blood corpuscles, and is invaluable as a restorative to the damaged blood corpuscles in severe cases of syphilis, etc.

Tendency to Pus Formations is caused by the action of alcoholics on the blood corpuscles, so changing their normal character in shape, vitality, etc., that they become agglutinated, thereby changing their function, and preventing their normal flow through the capillaries, predispose to pus formations, as in empyema, complicating a pneumonia, etc.

Bright's Disease.—That expression of the disease as manifested by hyaline casts, is nothing more or less than the action of alcoholics on the serum albumin of the blood, precipitating the albumin, which, in its separate and changed condition, being unable to pass through the kidney tubules, make a cast or impress of the tube on its passage. Normal kidneys also vitally excrete egg-albumin, but resist the passage of serum-albumin only under pathological conditions.

Angina Pectoris is the result of a diminution in caliber of the coronary arteries, or of the aorta, immediately about their orifices. Continued high tension in the aortic system is a primary cause of arterio-sclerosis, whether from febrile, or other causes, from which the heart and coronaries suffer most. Functional increase of the heart action is also a factor in the production of sclerotic tissue. "An artery which is the seat of arterio-sclerosis may later become affected by atheroma," as the kind of stimulus determines

the kind of cell-proliferation, or change. The specific action of barium chloride on sclerotic tissue, relative to angina pectoris, may appear in another article later.

Syphilitic Stricture is due to an infiltration from the blood of a substance resembling lardacein in the walls of the small blood vessels, especially the arterioles and capillaries, or in organs whose tissues are already injured by disease through malnutrition, due to anemia. In a large proportion of cases the intestines are the seat of the deposit, occasionally the esophagus, testes, etc. This infiltrated substance is soluble in water. The specific virtue of oil of hyssop is to purge the system of the specific virus. The free use of water, drinking, if possible, two quarts daily in divided portions, and two hot baths a week, cleanses the system and carries off the matter prepared to be eliminated by the hyssop.

Ulcers Accompanying Syphilitic Disease, as in other instances, is a secondary matter, due to malnutrition of the tissues, through disease of the nervous system in particular. Lower vitality of a tissue is due to interference from any cause with its nervous supply. Ulceration is due to nerve change and lessened resistance of the tissues. As syphilis is so largely a disease of the blood corpuscles, arsenic is a most valuable remedy to restore the normal standard of the corpuscles, and copper to restore the standard of nerve substance of the brain and abdominal nerves. Arseniate of copper, one one-hundredth grain, one tablet night and morning for several days at a time only, watching the same, will render most valuable service in these conditions.

A most valuable key for the discrimination of causes for those who will receive it—it is written: "For the good are good things created from the beginning; so evil things for sinners or the disobedient of the highest laws."

Enclosed find one dollar and a half for the MEDICAL BRIEF and *Funny Bone*. I take all the leading medical journals, and can truthfully say the BRIEF ranks with the best.—DANIEL B. CLIFFE, M. D., Nashville, Tenn.

[Written for the MEDICAL BRIEF.]

Faddists.

BY JOHN A. WELSCH, M. D.,
Farber, Mo.

All professions have their faddists, the medical profession being no exception. They have the fellow who is looking for the lost corpuscle, those who are looking for the misplaced cell, those who are trying to discover the contagiousness of tuberculosis and of pneumonia, and the fellows who cure everything by infecting one of the lower animals and drawing off the serum from the infected animal and reinfecting the man. These fads are probably harmless to those who follow them and possibly all contain an element of truth which continued investigation and research may make of practical value to the physician, providing he is left free to use his individual judgment and make his selections after comparison and investigation.

But there is another class of faddists that are a menace to the profession as a body and individually. They are the law faddists. Nothing not original with them looks right to them, and yet they are not willing that their pet theories shall be placed before the profession and they be allowed to use their judgment in the matter and they are not usually brilliant enough nor have they professional success sufficient to make them prominent or powerful. But they are determined to secure both, and knowing the average physician to be an overworked and poorly paid individual, they realize that here is a good field to sow the seed of discontent and they proceed by telling them that if you will sacrifice your liberty and place the matter in our hands we will have laws passed that will legislate the other fellow out and you in; in other words, we will take the practice from the other fellow and give it to you by a process of legislation.

The physician being a busy man with no time to investigate beyond the sound of words, and they sound good, accepts the proposition. But the support of at least a part of the people is needed and the law faddist appeals to them after this fashion: He says to the people, Your physicians are

ignorant and incompetent, you need protection, you need a law that will insure you that none incompetent will be allowed to practice and this will save you the trouble of using your own judgment in the matter, which would likely be poor in any case, and the result laws are passed. These laws, of course, require some one to see to their enforcement. This means positions which are filled by political appointment from the ranks of the law faddists. And the result is that the physician finds himself bled for fees on every hand—competition increasing. Nondescripts of every kind springing up, his right to change his location prohibited, his right to think and regulate his own conduct questioned, his favorite medical society converted into a political machine to serve the interests of these self-appointed guardians. And possibly his very right to practice where he has served so long questioned. And, finally, these guardians, in order to make themselves perpetual, organize, and make the declaration that in the future a diploma from one of our reputable medical colleges shall serve only as a means of identification, and have no weight as an evidence of education or fitness to practice. Their label being the only genuine, and this can only be procured by being a member of one of the societies supporting the guardians, or, possibly, two of such societies, in addition to the means of identification; and if this, together with their extortionate fee, will not keep you out they have what they call the preliminary educational requirement, which they admit, in some places where they use it, that it is of no practical value to the prospective physician, and yet they use it. Some physicians dare to question where these politician regulators get their education which pales a diploma from one of our great institutions of learning into a means of identification and robs it of its value as an evidence of qualification.

Others would like to know why they must belong to at least two of their pet societies before they are entitled to any recognition from them, and their answer is: You have appointed us your guardians and you must not presume to think about these things. You publicly acknowledged your unfitness to use your judgment as to your conduct as professional men and now you must not be unethical and question our wisdom, and if you do we have you where you can not help yourselves, so now be good or we will prosecute you under a new law which we propose to have passed by the incoming legislature—to create a few more offices and further protect you and the people.

While the above statements look as if they were extreme, they are facts.

If some worthy practitioner who graduated some fifteen years ago will attempt to change his location he will find this to be a correct statement of affairs. Why should the medical profession have guardians? If it is a fact that such an extensive preliminary requirement is necessary, how can a man have success without it, as many of our best and ablest practitioners do? Are the people so ignorant they can not distinguish between a successful physician and an ignorant pretender? Why should a physician be compelled to belong to a medical or other society whose principal accomplishments are to devise laws to furnish salaried positions to their political promoters and work hardships on the rank and file? This does not allude to the society whose expressed objects are to promote scientific investigation, disseminate knowledge, and promote friendly intercourse between physicians. Special legislative committees are not necessary in such a society and special class legislation has no part in its working. How long, brethren, before we will wake up and dismiss the political doctor?

[Written for the MEDICAL BRIEF.]

Pneumonia Not Necessarily Fatal.

BY E. V. PENNINGTON, M. D.,
Mohawk, Tenn.

Of late I see much in the medical journals and newspapers about the great mortality of pneumonia in New York and some other Eastern cities. I read these startling accounts with amazement and wonder. At a meeting of a New York medical society some weeks ago one of the prominent members of the society frankly told them they did not know how to treat pneumonia, and the sooner they would acknowledge the fact and set to

work to find a successful treatment the better it would be for all concerned. They bowed up their backs and fuzzed their tails like a set of mad cats, but when he showed them their record they had to own it. The unsuccessful part of the profession are trying to teach the people there is no cure for it in order to cover up their ignorance of its treatment.

This is very plain talk, but the result of their work shows that the undertaker gets most of their patients and the world can see at once that their efforts are a blank and a failure. I believe that the treatment used by nine-tenths of the physicians for pneumonia is a failure; but, gentlemen, it is not because there is no successful treatment for the disease. It is because they have laid down common sense and rational therapeutics. They have gone off after "fads" and have not yet returned (to the sorrow of the families of their many patients).

New York is considered a great medical center, and it is a great city and has some good men in it. They have some good medical colleges there and it is considered very popular for physicians to go there for an education (?). But how about a man trying to be a professor in a medical college and to teach other men how to treat the sick and cure a case of pneumonia when he can not do it himself? If the men at the head of the profession can not cure a case of this disease they had better "go foot" and come up again. They had better go to the country and take lessons under some "cross roads" doctor until they learn to successfully treat this, one of the easiest of all diseases to be cured.

I know this does not correspond with the teachings of some of those considered most eminent in the profession, but it corresponds with fifteen years of personal experience, and I lean on that stronger than any man's writings or my college teachings.

A few years ago a representative of a medical publishing house offered me a work on practice by one of America's most famous teachers and writers. I happened to open the book at the chapter on pneumonia. I scanned his treatment and it said: "There is no successful treatment for this disease. If there is anything which influences or cuts it short or cures it one day sooner than it would get well without treatment I have never found it out. Most of them will die, anyhow." I did not buy the book, of course not. The trouble with most of them is that they are all trying to act "German," or do like Koch and a host of others have tried to do—advance some great germ theory and laud some fake serum or germ killer and have all the newspapers and medical journals howling for the immortalization of this giant discoverer; and when we find the truth of the theory by a test, there has been nothing discovered. They try to catch a great big opossum out of a great big tree, when in reality it is only a small opossum sitting in the fork of a dogwood bush where they could have easily reached up and got him if they had known he was there.

The New Yorkers protest that the soothing influence of their presence might benefit the dying patient. It would be just as well and more economical to just call the preacher to do that. A physician that can do no more for a pneumonia patient than that had better get him a job as a dry goods clerk or to sell "lightning rods."

This "germ theory" fad has done more harm to the profession than anything that has crossed our path yet. It has caused good men to throw down rational treatment (treating the patient and his symptoms) and go to hunting for "bugs" and microbes that unscrupulous and unscientific bacteriologists have told them was the cause of the disease. Then they spend all their time hunting for a remedy that will kill the microbe, and when they have gotten the "bug" killed the patient is killed, too. They go hand in hand together into the grave.

The microbe is not the cause of the disease, but is the result of it. Nature sends those little scavengers in there to devour the decaying tissue to prevent sepsis and consolidation of the lung.

Let the bug alone; when he is no longer needed in there Nature will remove him. He does not attack healthy tissue and can only thrive where there is decay going on. A pneumococcus never was the cause of a case of pneumonia and never will be. Then it is just as rational to try to kill

all the buzzards when your horse gets sick as it is to try to kill the microbes because a man is sick. He only destroys the dead and poisonous part of the waste from a diseased system. Pneumonia is one of the most dangerous and painful diseases we have if let run its course, but I reiterate, it is one of the most easily managed, and easily aborted at any stage, of any disease that I have ever treated.

I see no reason whatever for such a mortality from it as we are having. I think myself it is time to call a halt, consider our fatalities and the virtue of our remedies, and if we can not keep "crape off the door" with the treatment we are using, get one that will give satisfaction.

When men's and women's lives are at stake there is no time to sit around "looking wise" and wait for our personal bearing to influence the patient to recovery, and then when he dies stand around the mourning family and say: "The Lord giveth and the Lord taketh away; blessed be the name of the Lord." The Lord did no such thing. He had nothing to do with it outside of the laws of Nature.

I write this article not just to criticize somebody, but to keep the profession from shutting out hope of successful treatment of such a prevalent and fatal disease as pneumonia has been. I am tired of hearing college professors and medical writers reiterate their fool bug theories and pathological nonsense about this disease and teach budding physicians that there is no cure for it, and to be satisfied if he cures a few of them (or rather if a few get well in spite of him).

Gentlemen, it takes one hundred per cent of cures to satisfy me in treating this disease. It is very prevalent in East Tennessee, and in fifteen years of experience with it I have treated them at all stages of severity and all ages. With the treatment I use I always find them better on the second visit, and usually better every day until they are well. I always dismiss the case inside of seven days. I have never lost one, and if I ever do I shall be so dissatisfied with myself I shall quit the business. It is not so much in which remedy we use as how we use it. First we should make a positive diagnosis of existing conditions. Go at it sensible, like a mechanic would do in dealing with a defective piece of machinery. Know what is wrong. Know what will have to be done to relieve the situation and then select the best one of a class of remedies that will produce that effect. When that remedy is selected, use it according to effect. Make it do what you want done, then stop. The one that is most skillful in the discharge of this duty is the one most successful in curing pneumonia. We need no new remedies or specifics to do it, but use what we have and use them for all the good there is in it. I lose patients with some diseases, but it pains me to hear of good men and women dying of this disease. Then, when the profession is trying to satisfy the public mind with their unsuccessful clumsiness I can not help but "speak up."

I would like to go more into details, but fearing I am already too lengthy I will have to stop.

[Written for the MEDICAL BRIEF.]

Case of Necrosed Bone of Head.

BY A. D. SHAW, M. D.,
Physician to Garland County Poor Farm.
Hot Springs, Ark.

Jacob Motts, white, aged fifty-three, admitted to poor house, March, 1904.

On my first visit to farm after his admittance, on close examination and history, diagnosis was: Syphilitic necrosis of parts of temporal and frontal bones. Center of necrosis was at sutures of said bones. He contracted syphilis some twenty years ago. Had taken treatment here for a period of ten years, off and on, as a sore would break out, until all his money was gone, hence going to the poorhouse.

After examination, I gave patient constitutional treatment, until in June, without any good results, I advised an operation. Not having any place to operate at the poor farm, had patient brought to my office, on June 20th.

Assisted by Drs. R. G. Davis and S. D. Weil, we proceeded to operate, mind you, in a private office. Patient being a pauper, and no fee from him, only the paltry fee of $50 from the county

for the operation. Patient cleansed, placed on chair and etherized. We made our incisions as follows: Commencing about one inch above and in front of ear, extending to eyebrow. Along suture of bones, upward an inch, and along same suture downward two inches. Exposing five and one-half square inches of necrosed bone, with lines of demarkation very plain; lifted out bone and exposed an abscess containing an ounce of pus. A fistula had formed along the frontal bones, which was removed. Wound cleansed and dressed, and patient put on cot a few hours. After operation patient went to his room, coming up every morning for the wound to be dressed. The wound was healed by granulation, not putting in a plate of any kind. Patient has made a complete recovery.

Now, what was the cause of the necrosis? Was it due to syphilis, or was it due to mercurial salts deposited in the sutures of bones. As I have two more cases of necrosed bones, one of leg and one of arm, in syphilitic patients out at the poor farm, for when they go to the poor house they have had the treatment here, viz., rubbing mercury, and taking kali iodi. from one to ten years, off and on, as a sore will break out. I would like to hear from members of the BRIEF family as to the causes of the above troubles.

Success to the BRIEF and its readers.

234 Central Avenue.

[Written for the MEDICAL BRIEF.]

Halitosis, Bad Breath.

BY C. W. CANAN, M. D., B. S., PH. D.,
Orkney Springs, Va.

In treating this subject we will be as brief as possible, owing to limited space. The exhaled air, called the breath, is composed of nitrogen and oxygen; the latter is less in proportion than found in the atmosphere. The breath also contains aqueous vapor, ammonia, organic impurities, and a little over four per cent of carbonic acid. The last named ingredient is increased in the early stages of the acute infectious diseases, viz., measles, scarlatina, small-pox, etc., except typhus fever, when it is diminished. The temperature is slightly less than that of the body, being influenced by that of the external air, but seldom falls below 92° F. In fevers, the temperature is increased, but in the algid stage of cholera, and when death is pending, in many diseases it is almost cold.

In perfect health the breath is almost odorless, but is modified by very slight causes, and under many conditions becomes valuable as a diagnostic sign.

In diabetes mellitus there is a peculiar sweetish odor, likened to those of honey, sweet apples, or new mown hay. In glaucoma a peculiar breath known as *haleine safranee* is invariably present. In pyemia there is a peculiar breath that is hard to describe, but when once detected will seldom be forgotten. The breath of chronic alcoholisms is very offensive, possessing a peculiarity, unlike any other odor. Many volatile substances when entering the system through the ordinary channels are excreted to a certain degree through the lungs, and contaminate the breath. These are chloroform, turpentine, alcohol, etc.

Bad breath may be due to either local causes or systemic disease. Among those that are local will be found dental caries, and various affections of nose, mouth, larynx, pharynx, tonsils, and lungs. Bad breath more frequently results, in those who have decayed teeth, from particles of food that are undergoing decomposition than from the teeth themselves. This is sometimes the cause where there are no caries, in persons that are careless about their teeth.

In cancrum oris, follicular tonsillitis, and necrosis of the jaw, the breath has a very characteristic sickening odor. In follicular pharyngitis, the odor is due to decomposition of the secretions and food particles that fill up the follicles, and is characteristic of fecal matter. The breath in diphtheria is suggestive of putrefaction.

There is a condition known as catarrh of the tongue, which occurs as a disease *per se*, or may be associated with dyspepsia, in which the odor is due to decomposition of mucus, epithelial scales and particles of food.

Offensive breath is always present in dyspepsia, either gastric or intestinal. The cause, or wherefore, is easily under-

stood. The broken-down tissues, and effete matter, that should be eliminated through certain channels, are dammed up, hence Nature tries to assist, by throwing off a part through the lungs.

When constipation is associated with this disease, the breath at times is very offensive, because of large quantities of decomposing organic matter. The breath is also offensive in gingivitis, the result of mercurial or arsenical poisoning. The same is true in scurvy and syphilitic ulceration of the mouth and fauces. Ulcers in the larynx and pharynx, especially when syphilitic, contaminate the breath. The same is true of tubercular ulcers.

There is no disease that makes the breath so offensive as ozena. In this disease the breath is exceedingly foul and repulsive.

Patients suffering from uremia have a breath that strongly resembles ammonia, due to a failure on the part of the kidneys to eliminate urea.

Various mineral substances, which are themselves almost, or quite, without odor, when taken into the system, in sufficient quantities, cause a very disagreeable breath, due to irritation of the stomach, or deranged digestion. The odor of the breath may change temporarily under trivial causes. Fits of anger and excitement may, and often do, produce fetid breath.

Some women's breaths are always offensive during their menstrual periods. In feverish conditions in children, the breath has a sweetish odor, reminding one of chloroform. Children suffering from worms, have this peculiar breath, except more fetid, but it can not be relied upon, because many conditions in which there is irritability along the alimentary canal may give rise to similar, if not identically the same bad breath.

In certain forms of bronchitis, and in cancer of stomach and liver, the breath may become very offensive. There are some individuals who suffer more or less from an offensive breath, the cause of which it is impossible to discover. This may be constant, and yet there seems to be no deviation from normal good health.

We believe that the cause of this condition lies in faulty elimination of the skin, because the breath of this class of persons always partake (smell) of sweat and other secretions.

Treatment.—The treatment of this condition is as varied as the causes themselves. The thing to be remembered above everything else is to find the cause. This found, your success will depend whether the disease is curable or not. Where it is due to caries of the teeth, all cavities should be filled, and teeth that are too far gone extracted. If the gums are spongy, a tooth wash should be used containing thymol and myrrh.

When the cause lies with the stomach, we have found nothing more serviceable than charcoal after meals, in conjunction with the recognized treatment. In catarrhal conditions of stomach and bowels, with fetid breath, we have found the non-alcoholic extract of golden seal to be a most efficient remedy. Constipation should be corrected, if present, in all diseased conditions of the alimentary canal. Begin this with a thorough cleaning out of all retained debris, then follow with your laxative, and add to this the sulpho-carbolates to render the canal aseptic, and maintain it, and the offensive breath will soon disappear.

In all diseases of the mouth and fauces that are ulcerative in nature, a mouth wash or gargle should be used containing carbolic acid (one to two hundred) to which a little thymol has been added.

To sweeten the breath in incurable diseases of mouth, larynx, or throat, use the following:

R.	Thymol	3½ grains.
	Borax	15 grains.
	Oil of Nutmeg (dissolved in one drachm of alcohol)	5 minims.
	Distilled Water	16 ounces.

M. Sig.: Rinse mouth freely or gargle often.

In tubercular conditions, bronchitis, liver, and kidney troubles, everything possible should be done to establish a healthy condition of the skin. There is nothing so essential to purify the breath in these conditions as systematic bathing and friction of the skin with a flesh brush.

For bad breath, where it is impossible to remove the cause, the following can be used, and will be found more or less effectual in disguising it: the oil of cinnamon, cardomum, mint, nutmeg, cloves; cardamon seed, anise, spice, etc. It should

be remembered, also, that in many conditions, the proper restriction of diet will be found exceedingly beneficial.

[Written for the MEDICAL BRIEF.]

Is Drug Treatment Useless in Pneumonia?

BY G. W. N. ELDERS, M. D.,
Hematite, Mo.

Dr. Arthur D. Bevan, of Chicago, asserts that it is. After an active practice of thirty-eight years, with more of that kind of practice than usually falls to a single physician, and having passed through three severe attacks of the disease myself, I claim to know whereof I speak.

I assert that the proper treatment of pneumonia does do good, and saves many lives that would otherwise be lost. In my own case when remedies were administered and certain local application used, I would at once feel better, and soon begin to mend. The duration of the disease under proper treatment should not run a longer course than from five or seven days, that is when treatment is commenced in the first stage of the disease. Without entering into a description of symptoms or pathology or cause will at once give my treatment of the disease.

First do not treat the name, but the patient and the plain indications of the disease. On being called to case of pneumonia first put the patient in the most favorable condition as to surroundings, room, nurse, etc. The patient should have a comfortable bed, a light room with good ventilation. Temperature should be kept at from 65° F. to 70° F. All company should be excluded save proper nurses; no talking allowed by patient; patient should have plenty of fluid nourishment with plenty of good cold water to drink; lemonade when preferred by patient. Sponging off every six hours with warm soda water, or if extremities are cool, with mustard water (warm), medical or drug treatment. Would first clear out bowels with an active cathartic containing calomel, and at once apply a large fly blister over diseased lung, leaving it on long enough to produce a good blister, opening by pricking with needle, letting water out frequently, dressing with vaseline and continuing irritation produced by blister until disease subsides by repeating blister as necessary to keep part sore on outside until inside is all right. (This is on homeopathic principles, but is good all the same. *Similia similibus curantur.*)

Then after bowels are freely moved would continue mercury with Dover's powders, say about one-quarter grain calomel with one or two grains of Dover's powders every three hours. At the same time if fever is high, cheeks red, give three minims of fluid extract of gelsemium every three hours, alternating with calomel, but if cheeks are pale give belladonna or atropine instead of gelsemium. If heart should be weak or should we fear heart failure give digitalis, as indicated after fever has began to subside. Give quinine and iron in small doses every three hours.

In addition to medicine I have chest enveloped in jacket well padded with cotton batting and kept comfortably tight over chest, so as to cause abdominal breathing to rest lung.

This is the way that I have been treating plain, uncomplicated cases of pneumonia. Of course, we often meet complications that require different treatment and a great deal is dependent on our judgment in such cases.

I rarely lose a case when called in time, or not more than ten per cent, and as I said before I have had more than my usual share of such cases from the fact that the people think I am better on pneumonia than my neighboring physicians, and I have practiced in this community for thirty-eight years.

I hope this will give some young physician courage to use drugs in pneumonia.

We have been friends a long time, and I can say for you that you have hated all the foolish fads that have come and gone, and have worked to keep us lesser lights in our senses, and so much depends (to me) on continuing our relations that I enclose one dollar for another year of the MEDICAL BRIEF, to further the good work you are doing.—W. B. TACKETT, M. D., Johnson, I. T.

[Written for the MEDICAL BRIEF.]

A Brief History of Modern Surgery.

BY E. J. KEMPF, M. D.,
Jasper, Ind.

(Continued from page 168.)

Anesthesia.—The National Library of Paris contains a manuscript entitled "A Treatise on Painless Operations." In it the author, Denis Papin, the illustrious philosopher who originally discovered the use which might be made of steam as a motive power, describes the different means which may be used to lull the sensibility of patients and to spare them the pain of operations. It is known that Papin, disgusted at the shackles which were placed on his researches in medicine, gave himself up to philosophical pursuits. The manuscript in question was written in 1681. Papin, when leaving Germany to return to France, gave it to an old friend, Dr. Bremer, who alone had sustained him by his encouragement and appreciation. This manuscript finally fell into the hands of Pador Lahn, a schoolmaster in the environs of Marburg, who died at an old age, when his heirs sold the manuscript to the National Library for a considerable price.

Modern anesthesia, however, was foreshadowed by Sir Humphrey Davy, in 1800, when he wrote: "As nitrous oxide in its extensive operation seems capable of destroying physical pain, it may probably be used with advantage during surgical operations in which no great loss of blood takes place."

This property of nitrous oxide, although a matter of common knowledge, bore no practical fruit until 1844. On December 11th, of that year, Horace Wells, a dentist of Hartford, Conn., being convinced of its anesthetic properties, submitted himself to the influence of this gas and had a tooth extracted without pain. Most truthfully did he claim on awakening, that "a new era in tooth-drawing had been entered upon." For want of apparatus he was unsuccessful in his attempt to extend his discovery to severe surgical operations, and disheartened by failure he put an end to his life. Wells was the Columbus of anesthesia; he touched upon the island, but did not recognize the great continent beyond.

By this time the stimulating effects of the vapor of ether had been discovered, and its similarity of action to nitrous oxide recognized. About two years after Wells' discovery, ether was administered by Dr. T. G. Morton, of Boston, on September 30, 1846, and a tooth was removed without pain. On October 17, 1846, ether was administered by Morton for a surgical operation performed by Dr. Warren, and several other successful trials soon followed.

Dr. J. Mason Warren thus relates the circumstances of the introduction of the use of ether into the Massachusetts General Hospital: "In the autumn of 1846, Dr. W. T. G. Morton, a dentist in Boston, a person of great ingenuity, patience and pertinacity of purpose, called on me several times to show some of his inventions. At that time I introduced him to Dr. John C. Warren. Shortly after this, in October, I learned from Dr. Warren that Dr. Morton had visited him, and informed him that he was in possession of, or had discovered, a means of preventing pain, which he had proved in dental operations, and wished Dr. Warren to give him an opportunity of trying it in a surgical operation. After some questions on the subject, in regard to its action and the safety of it, Dr. Warren promised that he would do so. On the Tuesday following, October 13th, after the surgical visit at the hospital, a patient was brought into the amphitheater for operation. This being the first opportunity which had occurred since Dr. Warren's promise to Dr. Morton, Dr. Warren said to us: 'I now remember that I made a promise to Dr. Morton to give him an opportunity to try a new remedy for preventing pain in surgical operations,' and asked the patient if he should like to have the operation done without suffering. He naturally answered in the affirmative. The operation was, therefore, deferred until Friday, October 16th, when ether was administered by Dr. Morton with his apparatus, and the operation performed by Dr. Warren. It consisted in the removal of a vascular tumor of the neck, which occupied five minutes. During a part of

the time the patient showed some marks of sensibility; but subsequently said that he had no pain, although he was aware that the operation was proceeding. On the following day a woman requiring the removal of an adipose tumor from the arm, was rendered insensible by ether, given by Dr. Morton; and Dr. Warren requested Dr. Hayward, who was present, to perform the operation. This was successful, the ether being continued through the whole operation, which was a short one, and the patient being entirely insensible."

"A few days afterward Dr. Warren informed me that he had learned from Dr. Charles T. Jackson that he had suggested the use of ether to Dr. Morton."

The success of this process in the prevention of pain was now quite well established—and anesthesia had been discovered.

Though Dr. Charles J. Jackson claimed that he suggested to Dr. Morton the use of ether, and that, therefore, he was entitled to the credit of the discovery, to Dr. Morton rightly belongs the honor of having carried anesthesia for surgical operations into practical operation. Other claimants soon arose to the honor of having made the important discovery.

The discovery of anesthesia conveyed a priceless boon to mankind. Through the use of anesthetics wonders have been wrought. Not only are the pains of the patients minimized and the evil effects of its dread banished, but the operator is no longer obliged to hasten his work unduly. He is enabled, unhindered by the sufferings and struggles of those under the knife, to proceed slowly and cautiously with minute attention to detail. All of which renders possible the performance of operations which could not have been performed in the old days and in the old ways.

In 1839, the surgeon, Velpeau, wrote: "The escape from pain in surgical operations is a chimera which it is idle to follow up to-day. Knife and pain in surgery are two words which are always inseparable in the minds of patients, and this necessary association must be conceded."

Yet, during the next few years, various discoveries revolutionized the practice of surgery and banished the intense agony caused by the knife. From Boston, where the first experiments with ether were made, the use of the new anesthetic in connection with surgery spread to all parts of the world. Before the close of the year major operations were performed in London, and within a few weeks no serious operations were performed at the hospitals without ether.

Park, in his "Epitome of the History of Medicine," asserts that the name of "Anesthesia" was suggested by Dr. Oliver W. Holmes to Dr. Morton, so that the name as well as the discovery of anesthesia must be credited to the United States.

On November 10, 1846, a new anesthetic was introduced by Dr. (later Sir) James Y. Simpson, who experimenting on himself with various compounds, at the suggestion of Mr. Waldie, a chemist of Liverpool, tried chloroform, and on the 15th of November he published his success with chloroform.

Dr. Guthrie, of Sackett's Harbor, New York, was an original discoverer of chloroform, quite independently of the contemporaneous (1831) researches of Souberran, Liebig and Dumas—made at the same time, but unknown to Guthrie. The credit of the discovery of its virtues as an anesthetic, however, rightly belong to Simpson.

Chloroform rapidly replaced ether and for nearly twenty years it was almost the only anesthetic used in all the countries. The change would have been permanent had not further experiment shown that chloroform sometimes causes sudden death. The increasing frequency of fatal accidents awakened attention and excited fear. After this many experiments were made by mixing the various anesthetics. Chloroform and ether in various proportions, chloroform, alcohol, and ether, and again ether alone were recommended and used by the leading surgeons of the world. At the present time both chloroform and ether are used as anesthetics. The purity of the chemicals and a better knowledge of giving them have diminished the danger somewhat. The practice of allowing a green student or a bystander to administer the anesthetic was

in the past responsible for the greater number of the fatal accidents attributed to either chloroform or ether. Students should be drilled in the use of anesthetics before they are allowed to administer them to patients about to be operated upon.

New discoveries in anesthesia have been made during the last few years, but except as to local anesthesia, or, rather, analgesia, no noteworthy improvement can be recorded. Chloroform, ether and nitrous oxide (in dentistry) are the three drugs used as anesthetics at the present time. Each has its advocates, but whilst ether is the safest, chloroform is the most pleasant both for the patient and the operator. The following may be considered good rules:

1. Ether should be administered in acute hemorrhage, in shock, in general pulmonary emphysema, in fatty heart, endocarditis, syncope, and at night, unless an electric light is used.

2. Chloroform should be given in nephritis, in acute pulmonary affections, in the nervous and hysteric, and in obstetrics; also in operations where the cautery is to be used.

3. Nitrous oxide should be used in dentistry.

The discovery of hydrochlorate of cocaine, a salt of the active principle of erythoxylon coca, and its use as a local anesthetic, especially in eye-surgery, was made by some laryngologists of Vienna, and later Dr. Koller, of Vienna, put the remedy into good repute by his experiments and reports. It was soon taken up by the profession, who came to the conclusion that the drug really did fill a long-felt want. The chief use of cocaine is in diseases of the eye, and its great worth in operations on the eye as an anesthetic is universally recognized. Cocaine is also used hypodermically in minor surgery, but has been replaced almost entirely by the so-called Schleich's Infiltration Method, which consists of the hypodermic use of a mixture of cocaine, morphine, and the so-called normal salt solution, and which is injected in sufficient amount to produce the necessary degree of tension and local anemia.

The so-called spinal anesthesia, produced by means of the injection of cocaine into the spinal canal in the lumbar region, is still in the experimental stage of development, and it is very doubtful whether it is anything more than a chimerical idea.

There are other anesthetics and other modes of applying anesthetics, and there are a great number of apparatuses for the administration of the different anesthetics, but in a work of this kind it is possible only to give the principal facts concerning the history of the subject, which I have endeavored to do in as brief a way as is commensurate with the importance of anesthesia.

Abdominal Surgery.—Ever since the discovery of anesthetics and the establishment of the artiseptic treatment of wounds on a firm basis, surgeons of special repute for skill and learning have made the study of diseases of the abdomen and its contents a special practice or a speciality; and this calling they have been pleased to determine as abdominal surgery. And wonderful, indeed, have been the achievements of these specialists. Special modes of preparing the patient, the field of operation, the assistants, the surroundings, and the after-treatment, and the special skill gained by special study of the anatomy and pathology of the abdomen and its contents, has enabled these surgeons to become especially successful in operating on and curing their patients.

The operations upon the appendix vermiformis and its surroundings, merit special mention, as it is an operation entirely of modern origin. To Dr. T. G. Morton, of Philadelphia, belongs the credit of performing the first operation for the removal of the appendix, after having made the diagnosis of a probably diseased appendix. To McBurney, of New York; Treves, of London, and others, should be awarded the honor of perfecting the most useful operation of appendectomy, bringing it in its various forms to the highest state of perfection.

But this is not all. There is probably no organ within the cavity of the abdomen that is not very carefully and skillfully operated upon to-day by these surgeons. The liver, the gall-bladder, the kidneys, the spleen, the intestines, the

bladder, are at the complete command of the modern abdominal surgeon. The large cavities of the body are all reached by the surgeon's knife, but especially does the surgeon excel in abdominal surgery with the aid of antiseptic treatment of wounds.

The surgeon can remove one of the kidneys of the body, if necessary, leaving the other to do its work, and calls this interesting operation, nephrectomy. Or, if one of these organs becomes dislocated, the surgeon sews it into place, and calls the operation nephrorrhaphy. Another very interesting operation on the kidneys with another euphonious name is the removal of a renal calculus from a kidney, which the modern dictionary-maker calls nephrolithotomy.

The modern abdominal surgeon has evinced great skill in performing abdominal operations and after he has performed them he equally skillfully gives them an appropriate name. For instance, when he gets through with an excision of the gall-bladder, he calls it cholecystotomy, and the patient recovers, thanks to modern antiseptic surgery, to become an illustrative and educative case in some first-class medical journal. If the gall-bladder has no passage to the intestines through the cause of some disease or of an impaction of a gall-stone, the modern surgeon takes equal delight in successfully making one, and then calling it cholecystenterostomy. Or, if the surgeon removes a stone from the gall-bladder and then sutures up the cyst, he takes pride in naming the operative procedure chloecystorraphy, with the expectation of both bringing him fame, if not fortune. And so the modern abdominal surgeon keeps on multiplying operations on the organs of the abdominal cavity, and then gives them appropriate names, so that a modern medical dictionary is absolutely necessary to the medical student, if he wishes to keep himself posted on the progress of the abdominal surgery of the modern antiseptic era.

Dr. Wm. T. Bull, of New York, was the first to show that intestinal wounds can be mended with needle and thread, silk, or catgut. Since then in some cases several feet of the intestines have been removed with the successful re-establishment of the alimentary canal, with or without Murphy's button, which is no longer thought necessary for the uniting of the intestines when divided by the surgeon, who now prefers to stitch together the ends of the intestines in a skillful and successful manner.

Tumors.—The old authors regarded tumors as something entirely foreign grafted upon the organism. John Hunter taught that a drop of blood, being accidentally extravasated, became organized and assumed a growth independent of the adjacent tissues, and continued to grow till it was limited by some obstacles opposed to it.

Effusion of lymph has been considered a possible cause. It was suggested that in the development of the tumors the lymph played the same role claimed by Hunter for the extravascular blood. Chronic inflammation was regarded for a long time as the essential etiological factor.

Schleiden established the cell theory, which inaugurated the science of biology; Schwann showed from a cellular basis the analogy of the structure of plants and animals. Schwann must be regarded as the founder of the cell theory in its relation to animal tissues.

The study of tumors in plants and in the lower animals has done much in adding to our knowledge of the etiology and pathology of tumors. Johannes Mueller applied the cell theory to the study of tumors. Virchow elaborated this doctrine in establishing by his immortal researches the motto of his great work on cellular pathology, *"Omnis cellula e cellula."*

Cohnheim referred every tumor to its proper embryonic layer, and claimed that a tumor never had its origin from mature tissue, but always developed from a matrix of embryonic tissue.

In addition to Cohnheim's theory Senn claims that the essential tumor matrix may be composed of embryonic cells, the offspring of mature cells which for some reason have failed to undergo transformation into tissue of a higher type, and which may remain in a latent, immature state for an indefinite period of time, to become, under the influence of either

hereditary or acquired exciting causes, the essential starting point of a tumor.

The treatment of a tumor is necessarily preceded by a diagnosis and a choice of operation. No operation is to be undertaken lightly, but the patient's secretions are to be examined and regulated, and the patient generally prepared as for any other surgical procedure. The treatment of tumors varies with the kind of tumor and other circumstances. Except with the exception of gummata, drugs given by the mouth are not much to be relied on for the cure of tumors. Electricity has, up to the present time, except as a cautery, not taken the place of the knife. Apostoli's method of treating uterine myomata is still *subjudice*. The X-ray is limited to inoperable tumors, and so are the injections of serums or erysipelatis streptococcus products. The knife remains the main treatment for tumors.

[Written for the MEDICAL BRIEF.]

The Therapy of Cholagogues.

BY J. C. DENSTEN, PH. D., M. D.,
Scranton, Pa.

A "cholagogue" is any medicine which will evacuate "bile."

Now the simple fact of evacuating bile does not explain the great therapeutic benefit derived from the administration of cholagogues in many diseases.

We who have practiced medicine for a number of years have learned from experience that in treating all fevers, and especially those of malarial origin, it is a cholagogue which become prerequisite to all other treatment in order to prove more efficient all after-treatment.

In a case of intermittent fever, for instance, we have found empirically that to give quinine without first administering a cholagogue, is practically to fail in a cure, and the etiology of this particular therapy is evident when we know the therapeutic value of bile.

Bile is an antiseptic—an antitoxin—and a bacteriacide, and it has been ordained specifically, from the beginning of animal creation, as a part and parcel of all animals containing a liver, with the express purpose of giving to the alimentary canal a natural antitoxin—germicide and antiseptic, for the promotion of health.

When the liver becomes sluggish and fails to manufacture a requisite amount of bile sufficient to antisepticise daily the aliments, then it is that fevers and various diseases are engendered. So we have learned that effective treatment of diseases, especially fevers, should be directed first to stimulating the liver, increasing and evacuating bile into the alimentary canal, to clean up, anticepticise and evacuate from the canal all sepsis and bacteria, which have given rise to the disease. When this is thoroughly and efficiently done there is an abortion of the dreaded disease and prognostications are favorable toward a speedy recovery.

The most efficient and effective cholagogue perhaps to be found in the physician's armamentarium is hydrgr. chlorid., mite, which should be given in small doses (one-tenth to one-fourth grain) every fifteen to thirty minutes, combined with soda bicarbonate as an adjunct.

In this form of administration three grains of calomel will prove more efficient as a cholagogue than the ten grains at one dose given by our preceptors.

Podophyllin is largely prescribed and is efficient in emptying the small intestines and as a cholagogue bears the same therapeutic relation to the vegetable as calomel does to the mineral kingdom.

About twelve to fifteen hours after beginning the administration of a cholagogue, especially calomel, there should be a flushing of Nature's sewer with some saline or liquid magnesia.

Hippocrates, the "Father of Medicine," gained all his knowledge empirically, and arrived at conclusions by intuition, the only means at his disposal being by observation. He possessed no knowledge of either anatomy or physiology, yet his treatises on description of diseases and methods of observation are in line with modern medicine. He said: "We must extract the rules of practical medicine, not from the sequelæ of consequences, no matter how probable, but from experience directed by reasoning," and this philosophy is as true to-day as it was then—four hundred and twenty years before Christ.

Theory is often a good thing to possess, but practical experience makes one more

perfect. Theory may be hypothetical, and as such, if followed, may end in failure. Medical theories make a practitioner feel more confidence in himself in the pursuit of first practice,' perhaps, and a physician when lost may find himself by consulting theories, but the empirical knowledge obtained by and through applied practice and observation is lasting, truthful experience, which leads up to confidence and perfection, and the sooner the student of medicine gets down to experimental practice the sooner will he be fitted, by experience, for the curing of diseases.

In many countries and even among savages and barbarians, the natives have learned by experience to give bile as an antidote to bites of venomous snakes, with undoubted success and lasting cures. It has been reported and substantiated that hydrophobia has lost its terrors to the natives of Bengal since they have discovered an antidote in the feeding to the one bitten a portion of the yet warm liver of the slaughtered dog or animal which inflicted the bite or wound, the bile in the liver acting as an antitoxin. Bile has been proved an effective immunizer by several scientific investigators and Nature and common sense have been trying to teach us the intended use of bile since man's creation and it may be regarded as an axiom that there is a specific purpose in every act, production and phenomenon of Nature. Therefore, bile being a normal, natural production of the liver a certain amount of it is daily necessary for health, within our alimentary canal; and when from any cause there is insufficient of this substance to sufficiently antisepticise the tract, bacteria accumulate, sepsis results and disease is the sequlæ. When we, therefore, suspect bile to be deficient, we may reproduce sufficient by the stimulating action of a cholagogue.

Enclosed find two dollars for two years. "Counsel in the heart of man is like deep water, but a man of understanding will draw it out." Let the independence of the BRIEF continue, and stand by the laws of the organism, for therein lies the whole of medicine.—ELI CONN, M. D., Akron, Ohio.

[Written for the MEDICAL BRIEF.]

Elimination.

BY W. T. MARES, M. D.,
Jewett, Ill.

Every young physician is very anxious to give immediate relief, and in order to accomplish this he is very prone to dispense opiates and sedatives liberally, and perhaps frequently call into requisition the hypodermic syringe. As he grows older he learns that under this plan of treatment symptoms are masked, and in many a case the patient's illness is thereby prolonged. To relieve present pangs of suffering is laudable, yea, the doctor's duty, but the possibility of engrafting upon the patient a worse condition should ever be borne in mind.

Elimination is the keynote of success in alleviating nearly all acute conditions and many that are classed as chronic. Conversely the fact is apparent that the checking of secretion and excretion produces the major number of acute ailments and is primarily the causative factor in many chronic troubles. Nature gives us the cue to the treatment in nearly all impaired functions if we would but heed her teachings. It is so easy to forget, or to fail to apply, the knowledge we possess.

For a brief clinical review we may note the four greatest organs of elimination—the skin, bowels, kidneys and lungs. In close touch with these, being accessory thereto, we should keep in mind the liver, stomach, pancreas and the entire glandular system.

The Skin.—This being the greatest emunctory in the body is ofttimes not regarded with sufficient importance. Nearly three millions of sweat glands are constantly at work throwing off poisonous matter. To close these up by enveloping the body with an impervious coating would produce sudden death. We know the effects of chilling or dampness of the skin, especially in the very young, aged or debilitated. Cystitis and pneumonia are invited. Fever reduction being a goodly portion of the doctor's routine, the skin offers the most salient opportunity for this. To lower fever heat production should be lessened, or heat loss should be encouraged through radiation. Aconite

and digitalis reduce temperature by lowering vascular pressure, conducing to peripheral relaxation. It is also thought that these drugs have special action on the heat center in the medulla. The action of coal tar antipyretics is mainly through a perversion of the oxygen-bearing function of the red blood corpuscles. Sweating by the hot pack and by the administration of hot drinks is an old method of promoting cutaneous elimination that is never attended by unpleasant after effects. In rural districts people are accustomed to use the "corn sweat," made by boiling ear corn and wrapping with cloths, placing about the patient. This creates a steamy heat which gives rise to copious perspiration. Under this treatment I have seen a renal anasarca melt away like magic.

The Bowels.—Clinically, this function most often commands our attention. Constipation underlies the majority of cases met by the general practitioner. Nearly all fevers are preceded by an auto-toxemia. Early attention would have set the patient aright. Constipation is often superinduced by a perverted function of some of the organs of digestion. The liver is the great scapegoat and often it is at fault. Calomel and podophyllin in small doses is, as a rule, good treatment directed towards hepatic stimulation. If mercury is contraindicated chionanthus or its product is an excellent remedy and acts without purgation. For constipation, *per se*, cascara sagrada and salines are our dependable drugs. Epsom salts, coupled with good hygiene and sensible living, have cured many obstinate cases of headache, rheumatism, stomach troubles, etc.

The Kidneys.—The main function of the kidneys is to filter off waste products, chief among these being urea and uric acid. The inadequate function of the skin and bowels causes the kidneys to perform an additional, vicarious work in attempting to rid the body of impurities. Alcohol heads the list of causes of diseased kidneys. The other emunctories can not get rid of alcoholic poison and the kidneys are compelled to make the attempt. Of agents which cause an increase in the flow of urine we may class thus:

1. Those increasing blood pressure by contracting vessels in other parts of the body, *e. g.*, digitalis, strychnine.
2. Those dilating renal arteries, *e. g.*, alcohol.
3. Those stimulating the secreting cells of the kidneys, *e. g.*, acetate and citrate of potash.
4. By simply washing out the kidneys, *e. g.*, water, drank freely.

Thus we would conclude that in the administration of diuretics the remedy should depend upon the functional or pathologic abnormality. The quantity of solids excreted daily is usually the best criterion on which to base remedial agents.

The Lungs.—Here is the station where CO_2 is put off and the life-giving oxygen taken on. The act of respiring is controlled by a center in the medulla. Of drugs which affect this center strychnine and opium are at the top of the list. To speak practically, the lungs are perhaps the most misused, if not abused, of any organ in the body. Thousands of people live the greater part of their lives in an unhealthy, vitiated atmosphere. Thousands of women and a good many men in breathing employ only the top lobes of their lungs. The gospel of deep breathing has done more for consumptive humanity than all the drugs and methods of treatment in Christendom.

[Written for the MEDICAL BRIEF.]

Treatment of Diphtheria.

BY W. T. JOHNSON, M. D.,

Pawnee City, Neb.

As Northrup states "diphtheria is an acute infectious disease characterized by the production of false membrane on a mucous or abraded skin surface, and due to the presence and proliferation of the Klebs-Loffler bacillus and the toxins elaborated in its growth." It being primarily a local infection, the most frequent method of propagation is by inspiration of the air or infected by discharges from nose and throat of diphtheritic patients, as well as by direct infection by kissing, sneezing and using infected drinking utensils.

In discussing treatment, will consider only such cases as are biologically proven

to be true diphtheria. Will state here that in every case where a diagnosis of diphtheria is made antitoxin should be used, whether it neutralizes the toxins in the blood or is curative in some other respect. We practitioners who have treated diphtheria in pre-antitoxin days, and since, know that antitoxin has robbed diphtheria of many of its terrors.

The object of local treatment is to remove the false membrane without injuring the mucous membrane, neutralize the toxins in and around the denuded mucous surface and destroy as far as possible the source of development of toxalbumins. It is advisable also to remove the catarrhal discharges from the nose and throat as well as the putrid membrane.

We have remedies that dissolve diphtheritic membrane. The most effective is lactic acid; a twenty-five per cent sol. applied on soft brush or swab will cause rapid absorption applied every two to four hours. A spray of a five per cent solution of asepsin to the throat and nose or same used with syringe is useful to prevent putrefaction and the offensive odor characteristic of true diphtheria.

Since antitoxin has been generally used other remedial means have gradually fallen into disuse; this is retrogression; we have remedies which, taken internally, help to neutralize the toxins in the blood. In every case of diphtheria I give echinacea, internally, ten to sixty-drop doses every two or three hours, and if there is enlargement of cervical glands phytolacca is added, one to five drops at a dose. These remedies always do good where good can be done.

Inunctions of unguentum Credé over cervical glands three times a day is useful.

Temperature is best reduced by sponging with evaporating lotions, such as alcohol and cold water; antipyretic drugs should not be used; the bowels should be flushed with cold water where temperature is high. The specific poison causes cardiac degeneration with dilatation in some cases; there is a fall in blood pressure, with defective elimination from kidneys; renal excretion must be looked after. Because of the depressing effect of diphtheritic poison, stimulation should begin early; whisky or brandy has answered better than strychnia, which has been overestimated both in diphtheria and pneumonia; the heart must be supported until toxemia has passed.

Feeding is of first importance for tissue and blood building. Milk diluted with such cereal decoctions as rice or barley is retained better than pure milk; it is often necessary to peptonize milk; acid foods such as orange, cherry or blackberry juice, is well retained and in some cases it is necessary to let the stomach rest and depend on rectal feeding. This can be successfully accomplished if no more than two ounces is injected at a time; peptonized milk is borne when pure milk is not. Plenty of fresh air should be permitted in the room, yet an even temperature should be kept.

Intubation can be performed by the general practitioner with success. The first requisite is a good intubation set. I use O'Dwyer's; the cheap imitations are a delusion and a snare; then a thorough knowledge of the anatomy of affected parts, a cool head and steady hand and the operation is easy, after the first case.

Will give one case in recent epidemic. Gladys P., aged eleven years, called about fourth day, gave antitoxin three thousand units at ten A. M.; made unsuccessful attempt at intubation at noon. The tube was easily inserted, but immediately coughed up with complete cast of trochea and one bronchus; gave antitoxin, three thousand units, at four P. M. Patient rested fairly well for twenty-four hours, when cyanosis was again marked and laryngeal stenosis pronounced; gave three thousand units of antitoxin, and twelve hours later intubated, when tube was again coughed up with complete cast of trachea. There was also considerable blood. The tube was reinserted and left four days, when extubated and patient made good recovery. A complete false membrane reformed in forty-eight hours, when patient had been given eleven thousand units of antitoxin.

Enclosed find one dollar for 1905. Have been taking the BRIEF for many years, and expect to be a subscriber as long as I am in practice.—W. H. MCCONNELL, M. D., Brimfield, Ohio.

[Written for the MEDICAL BRIEF.]

Syphilis.

BY B. W. GREEN, M. D.,
La Aurora, Pueblo, Mexico.

In reply to your Oklahoma correspondent in January BRIEF regarding to soft sore being followed by specific symptoms, will say a person can contract both forms of infection at the same time, *i. e.*, the soft sore appearing from one to three days after intercourse, then, in about thirty days the sore will become indurated and show its syphilitic nature, the so-called mixed infection. Of course, from the soft sore alone, plus the suppurating bubo, you will often have a mild cachexia, the same as we have with any suppurating sore or wound.

I say a man can contract all four of the venereal diseases at the same "sitting," all appearing after their proper incubation; that is, the soft sore (chancroid) and venereal warts will appear before the others and both about the same time, often as early as twenty-four hours, more often from two to five days. Then the gonorrhea appears in from six to nine days, as a rule. Then the hard chancre, with the characteristic adenopathy, appears in about thirty days. It may be twenty days or it may be as late as ninety days.

[Written for the MEDICAL BRIEF.]

Forewarned.

BY WILBUR L. WRIGHT, M. D.,
Washington, D. C.

It has occurred to me many times before, but more forcibly to-day, during a consultation with a young man afflicted with tertiary syphilis, that it should be compulsory, by precept if not by law, when a patient afflicted with syphilis approaches a physician, the physician should explain in detail the awful sequences of the disease when allowed to develop through its various stages. The young man told me to-day that although he had consulted several physicians during the history of his disease, for the first time he had been told of the importance of the proper treatment of the disease in its early stages and the great harm that he has done to his wife and children through his ignorance of the laws of contagion and heredity.

I have made it a point during the years of my practice, whenever the opportunity presents itself, to impress upon the minds of those persons ignorant of this disease, the mode of contraction, the necessity of proper care and treatment, and its fearful sequences when neglected. The great crusade now going for the prevention of tuberculosis and the establishment of municipal hospitals for treatment of this disease, should be augmented by proper presentation of syphilis, which is the origin of many cases of tuberculosis, as well as locomotor ataxia, and other fatal diseases.

Observation will convince anyone of the fact that those patients afflicted with tuberculosis with a history of syphilis, either inherited or acquired, are beyond human help. The termination of such cases is invariably rapid and fatal. If every boy during the eighth grade of our public schools or, say, about sixteen to seventeen years of age, could have given him a serious talk, with the aid of anatomical specimens, or of such a work as the plates from Fox's Atlas of Skin Diseases, the object lesson would be so impressive that a great preliminary step would have been made toward the prevention of tuberculosis and syphilis.

737 Thirteenth Street, N. W.

[Written for the MEDICAL BRIEF.]

Chronic Constipation—Its Treatment.

BY EDWIN A. WEIMER, M. D.,
Pekin, Ill.

Probably no condition with which we have to contend at the present time is so productive of harm, and whose effects are so far-reaching, as chronic constipation.

It is found in all walks of life, and is usually due to neglect and the indiscriminate use of cathartics which, unintelligently administered or taken, create a paretic condition of the bowel and prepare it for a still worse constipation; a condition which is both distressing and deplorable. In order to overcome this condition I would suggest the following

line of treatment which has proven itself of great benefit in my hands.

I first impress upon my patient the necessity of being regular in his habits, as sleep, eating with the usual dietary restrictions, getting plenty of fresh air and proper exercise, and above all things to set a regular hour for defecation and strictly observe it. In order to aid the bowels I place him upon the following capsule:

℞ Aloin..... 3 grains.
Resinæ Podophylli..... 3 grains.
Ex. Belladonnæ..... 4 grains.
Ex. Nucis Vomicæ..... 6 grains.
Ex. Hyoscyami.....12 grains.
Ex. Rhamni Purshianin.....1 drachm.

M. ft. div. No. 12. Sig.: One each night at bedtime as needed to keep bowels open as directed.

I instruct him to take one capsule each night for the first two nights, after which to wait and see if the bowels move without help, and on the day they do not move to take a capsule, and so on.

In order to increase the activity of the liver, I also put them on a teaspoonful of sodium phosphate, dissolved in warm water, each morning, and have them continue it indefinitely.

As these patients, as a rule, do not drink enough water, I insist upon their taking a glass of water every two hours during the day and as much as possible at bedtime without causing distress.

The result of this treatment carefully carried out is that the majority of these patients, after three or four months, rarely need a cathartic.

[Written for the MEDICAL BRIEF.]

Diet.

BY W. L. KREIDER, M. D.,
Prairie City, Ill.

A physician in Hartford, Conn., had a patient who was very sick with dysentery, and after the patient was a little better he wanted some watermelon. The doctor strictly forbid him having it and said it would kill him if he ate it. That night the patient said to his nurse, "Give me some watermelon," and he had what he wanted. Next morning when the doctor came in he looked at his patient and said: "Sir, you are decidedly better." "Yes, sir, but not much credit to you, doctor. I had all the melon I wanted and have been better ever since." From that on, the doctor recommended watermelon in such cases. Perchance the next case he had the melon might do much harm unless the patient wanted it.

In the Franco-Prussian war a German had cholera and he wanted saur kraut. His doctor told him no. However, he got the kraut and soon got better. The doctor marked in his book, "kraut good in cholera." Next day an Irishman had cholera. They wanted him to eat kraut; he said he did not want it, but ate it and died next day.

A little girl, fourteen years old, had typhoid fever. She was attended by a homeopathic physician over two weeks, when I was called to see her. The second day I visited her she was crying. I inquired of her sister what she was crying for. She said she wanted tomato pickle. "Well," I said, "let her have some." "Why, doctor, it would kill her." "Well," I said, "it will not; give her a small quantity first." She got the tomato pickle and the next day when I saw her she was much better and wanted several other things, and soon made a fine recovery.

All this demonstrates to my mind that it is always best to give your patients whatever they ask for, but carefully guarding the quantity. The system makes a demand for what it wants, and I am sure it is much safer to be governed by this demand than the physician's, especially those who are always insisting on milk diet, which the patient very seldom likes. I have practiced medicine for forty-eight years and have never been disappointed in diet when governed by the demands of the patient, carefully guarded as to the amount of diet.

Mr. Heron-Allen's Contribution to Medicine.

The sum of one thousand pounds has been presented by Mr. Edward Heron-Allen to the Westminster Hospital, London, to endow a bed in one of Dr. Murrell's wards "in recognition of his valuable contributions to pharmacology and his researches on the action of remedial agents in the treatment of disease."

[Written for the MEDICAL BRIEF.]

La Grippe.

BY W. L. LEISTER, M. D.,

Associate Editor American Medical Journal, Rogers, Ark.

We do not hear so much of late of this erstwhile fashionable distemper, albeit the dyscrasia or a fac-simile, makes frequent periodic visitations upon the country. The disease attacks old and young, the seemingly strong as well as the apparently weak. Like death, it is no respecter of persons. The malady is so well known to the profession that little space need be used or time be devoted to a description of it. It has been claimed, and the writer's observation coincides, that there are three forms of la grippe, viz., the catarrhal, the glandular and the nervous. Some cases display features of all three.

The catarrhal manifests a penchant for mucous membranes, the glandular some or all of the secernent organs, while the nervous form more pronouncedly involves the nervous system. *Hebetudo animi* usually is an early precursor, with rhino-catarrhus a close second, admitting these deductions to relate to the catarrhal form of la grippe.

Cynanche tonsillaris is a concomitant in adolescency. Pneumorrhea is an ever-present result of atony of bronchial mucous membrane, and the latter abnormal phase the sequel of partial paralysis of vaso-motors.

Tussis, laryngeal or bronchial, of broncho-laryngeal, wet or dry, according as atony or irritation predominate. Both phases in varying shades of prominence may present in the course of the disease. Thus hyperemia would favor the latter variety of cough, while the absence of pain indicative of atony would have free gleet, as pointed out above.

The glandular form usually has at least partial arrestment of digestion, absorption, nutrition, together with secretion and excretion. Plethora of liver, stitching pain in that region; irritation of the urinary organs. Those of glandular or podagrical diathesis suffer of stomach and bowel congestions, vomitings, constipation of lower bowel. A subject of hemorrhoids, bladder trouble, uterine or other pelvic organ will experience greater suffering than usual while grip is upon him or her, and many cases, in consequence of the additional ailment, soon assume dangerous proportions and lead rapidly to fatal termination.

The same is true of pectoral and cardiac affections pre-existing. Derangement of the function of the liver and consequent hindrance to complete and perfect portal circulation will aggravate a mass of old pile tumors. This induces irritation of "the lower gate keeper," the next to hermetic sealer of the alimentary way—the sphincter ani, if you please—and true to all hollow organs when irritated affero-efferently, it contracts upon terminals of the sympathetic and the impulse set a-going, true to physiological law, starts brainward, but does not fail to report at way-stations; thus the throbbing azygose muscle is "touched," along with some others, in a way to result soon in exhaustion.

As was said in the outset, la grippe may attack the brain and nerves exclusive, or seemingly so, of any other organism. Why the disease should search out, as it were, one organ or a set of organs, instead of another, hardly need be argued, the parallax being more tenable, *i. e.*, a morboseness inherent in an organ, or in several, stands for cause of greater susceptibility. Thus it is obvious why the distemper under review does actually aggravate all previously present phases of disease. For these reasons la grippe has increased the death-rate of pneumonia, congestions, etc. It has brought to sudden fatal termination many cachexiæ.

Disordered sensation, volition or mental manifestation without evident lesion in the structure of the parts, and without any material agent producing them, so far as can be named, would come under the classification of nervous la grippe. With organs functionating normally, in so far as casual observation of subject or physician might judge, yet a sensation so like that of death overspreading one; as sudden in onslaught as the avalanche overwhelms the unsuspecting village in the valley. Pain in head, usually over one eye, but extending back to occiput, and thence down spinal cord, and out spinal nerves. Muscles of tops of shoulders, back and loins intensely sore. Blindness

or partial blindness of one eye. Tinnitus aurium when no quinine or other antiperiodic or antipyretic had been taken. Most excruciating bursting pains in arms and legs. No cough, no coryza, no stomach trouble observable; but frequent and sudden onslaughts of sensations as if the next moment would bring the end of earthly existence. Such an one has nervous la grippe, and woe be unto him if there be a strain of insanity in his stock. And again, woe be unto one who had nursed for a long time "a bad heart." A vicious impulse generated from behind the eminentiæ olivariæ and the corpora restiformia while that region of basilar brain be in typhoonic eruption from the dread dyscrasia, would slip out of cranium by the foramen lacerum posterius on the body of par vagum and having gathered auxilliary energy from sympathetic neural cords, would want one pass only at a poor, old, long-suffering heart to "stop-watch" it forever.

From the foregoing we conclude that it behooves practitioners of medicine to study thoroughly, analytically, every case of la grippe called to. A nosological pronunciamento is not nearly sufficient in this, as it is not in any other disease. To be able to name a disease and then treat it only by formulæ or by ritual would not meet the requirements of progressive medicine. Know your case, whether it be one form or another or any dove-tailing of forms. More especially, look well to those organs in a state of previous debility, thus hedging on the latter intruder at every vital station.

As for the etiology of the disease under review it matters little. Whether microscopic animalculæ swoop down upon helpless humanity; whether planetary position—aphelion—might be considered reasonable, or whether as a result of retained debris auto-infection ensue, the doctor is alike powerless in this, as in other zymotic incursions, to interdict. His business is to conserve sanitary and hygienic conditions and preserve the vital energy of his patient by the exhibition of such medicinal agents and adjuncts as experience has established as positively beneficial.

In a future article we shall give treatment of la grippe.

[Written for the MEDICAL BRIEF.]

Cystic Tumor Complicating Labor.

BY F. R. TOLSON, M. D.,
Lafayette, La.

In October, 1903, I was requested to attend Mrs. O. G., thirty-five years old, in fourth pregnancy. The regular family physician who was engaged to attend this case was unavoidably absent. I found patient in the second stage of labor, vortex presentation, the membrane having ruptured several hours before my arrival, and from a careful examination I found that labor was complicated with a tumor, the nature of which I was unable to determine then. After several hours of very hard and expulsive pains and no progress, I requested the husband to procure assistance. Dr. J. F. Mouton soon arrived and found the same complication as I had found, and suggested that we defer mechanical interference for a few hours in hopes that we could better make out the complications.

After two hours we instituted another careful examination and found no progress. We desired to apply forceps, although the head was above the superior straight. I gave the chloroform and Dr. Mouton applied the forceps. After one-half hour's hard work and gradual traction was made with each expulsive pain, with no result, Dr. Mouton requested me to make traction, as I possessed more physical strength than he did. The patient was held by two assistants and I made forcible traction with each pain and slowly the head began to descend, pushing the tumor in front of it, which proved to be a cystic tumor, which was attached to the left side of the uterus. The cyst was punctured, ligated as high up as we could and cut off, the forceps having been removed and the patient allowed to deliver herself of a large twelve-pound boy. Both mother and child did well, neither having any elevation of temperature. The mother had several slight uterine hemorrhages, otherwise her recovery was uneventful. The boy died several months afterwards of bronchial pneumonia.

"Every knock is a boost." The BRIEF is prosperous.

Book Notices.

ELECTRO-DIAGNOSIS AND ELECTRO-THERAPEUTICS. By Dr. Toby Cohn, Nerve Specialist, of Berlin. Translated from the Second German Edition and Edited by Francis A. Scratchley, M. D., of New York. With Eight Plates and Thirty-nine Illustrations. Cloth, Two Hundred and Eighty Pages. New York and London: Funk & Wagnalls Co. Price, $2.00.

This is an authorized translation, with reproductions of the original plates, of the most popular German manual upon the kindred subjects of the diagnosis of disease and its cure by the use of electricity. Its author, Dr. Toby Cohn, of Berlin, is a practical instructor in these branches, and wrote the work to satisfy an imperative need in his classes. Dr. Mendel, of the University of Berlin, the well-known authority upon electro-diagnosis, pays the highest possible tribute to Dr. Cohn by noting the "interest and enthusiasm" of his students, and the "excellent and practical results" of his instruction. This work gives concisely all that is important in electro-diagnosis, and in electro-therapeutics all that is of positive value. It places electricity exactly where it belongs in a physician's armamentarium, as a curative agent. It will commend itself because of its excellent plates, its precise and very thorough explanation of the method of investigation and how to make an electrical diagnosis, and the careful instruction it gives for the proper use of electricity as a therapeutic agent. It presents so many good features in such an admirable manner that it should readily fill in this country the same place it has filled in Germany.

VON BERGMANN'S SURGERY. A System of Practical Surgery. By Drs. E. von Bergmann, of Berlin, P. von Bruns, of Tübingen, and J. von Mikulicz, of Breslau. Edited by William T. Bull, M. D., Professor of Surgery in the College of Physicians and Surgeons (Columbia University), New York. To be Complete in Five Imperial Octavo Volumes, Containing over Four Thousand Pages, Sixteen Hundred Engravings and One Hundred and Ten Full-Page Plates in Colors and Monochrome. Philadelphia: Lea Bros. & Co. Sold by Subscription only. Per Volume, Cloth, $6.00; Leather, $7.00; Half Morocco, $8.50. Volume III just ready. Nine Hundred and Eighteen Pages, Five Hundred and Ninety-five Engravings, Twenty-one Plates.

The American edition of von Bergmann, von Bruns and von Mikulicz's great surgery proceeds regularly and rapidly to completion. The first volume dealt with the head, the second with the neck, thorax and spinal column, and the third, just fresh from the press, considers the surgery of the extremities. The arrangement of the subjects in the successive volumes is evidently planned for the purpose of facilitating consultation.

It is significant of the development of surgical knowledge and skill throughout America that the highest literary product of European surgery should be so warmly welcomed here. Even at this early date the demand for the work exceeds expectations. As each country has its special conditions and preferences as to operations, the translators, themselves skilled surgeons, under the general editorship of Professor William T. Bull, of New York, have added whatever is necessary to make the work representative of American practice, so that readers may feel assured of possessing the latest and fullest surgical knowledge of the two continents. Modern progress is so rapid, and withal so solidly founded, that it behooves every surgeon, and likewise physicians who have even occasional surgery to perform, to add this library of surgical information to their shelves.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES. Embracing the Entire Range of Scientific and Practical Medicine and the Allied Sciences. By Various Writers. A New Edition, Completely Revised and Rewritten. Edited by Albert H. Buck, M. D., New York City. Published in Eight Imperial Octavo Volumes. Illustrated by Chromo-lithographs and over Five Thousand Engravings. Vol. VIII just Published. Eight Hundred Pages and Index. New York: William Wood & Co. Price, Muslin, $7.00; Leather, $8.00; Morocco, $9.00. Sold by Subscription.

This eminently popular work, that can be found in the libraries of all up-to-date physicians, consists of a collection of concisely written essays on all the important topics belonging to the broad domain of medicine, surgery and the

allied sciences. When you consider the fact that these eight volumes have sufficient matter to fill at least fifty ordinary volumes and the number and quality of the illustrations, you will readily see that it makes a large and complete library in itself. We would like to interest you in this book, as it is worthy.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia, With the Collaboration of Drs. Osler, Musser, Stewart, Murphy, McPhedran, Rotch, Clark, Walsh, Ballantyne, Harold, Landoldt, and Kretz. With Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Vol. II., Fourteenth Series, 1904, Philadelphia: J. B. Lippincott Co. Price, Cloth, $2.00 per Volume; $8.00 per year; Half Leather, $2.25 per Volume; $9.00 per year.

All the articles in the International Clinics are abreast with the times in their clinical value to student and practitioner, and being original can only be found on the pages of this work, which is thoroughly illustrated true to the object and in the best methods of the art —cuts that teach as well as illustrate. It is well within the reach of all practitioners, but it is only cheap in price. Once you have taken it you will be loth to give it up.

A GUIDE TO THE CLINICAL EXAMINATION OF THE BLOOD. For Diagnostic Purposes. By Richard C. Cabot, M. D. Fifth Revised Edition. Illustrated by Numerous Figures in the Text by Eight Chromo-lithographic and Nine Other Plates. Seventeen Full Plates in all. New York: William Wood & Co. Price, $3.50.

It is certainly very creditable to the author and the publishers to place on the table of the progressive physician a fifth edition of a work, thus showing the demand along this line of pathology. The Romanowsky method of staining has given an additional zest to the methods of staining of the blood. The main features taken up by the author is physiology, general pathology and special pathology of the blood. Blood examination, as described in this work, leads one to think that not enough significance is given to the diagnostic and prognostic value to be derived from such methods. It would be well for all physicians to thoroughly post themselves on this subject.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By James M. Anders, M. D., Ph. D., LL. D., Professor of the Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Sixth Edition, Thoroughly Revised. Handsome Octavo Volume of Thirteen Hundred Pages, Fully Illustrated. Philadelphia, New York, London: W. B. Saunders & Co. Cloth, $5.50; Sheep or Half Morocco, $6.50.

This is the sixth edition of this unexcelled work in as many years. Such a sale can not but be a gratification alike to the author and to the publishers. In this edition the general plan and principles of classification adopted in the previous editions have been preserved. The many tabular presentations of points in differential diagnosis have been retained. Differential diagnosis is a most important branch of diagnostics, except this tabular method we know of no superior way of familiarizing the practitioner and the student with the outstanding features of simulating diseases.

AMERICAN TEXT-BOOK OF SURGERY. For Practitioners and Students. Edited by William W. Keen, M. D., LL. D., F. R. C. S. (Hon.), Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia; and J. William White, M. D., John Rhea Barton, Professor of Surgery, University of Pennsylvania, Philadelphia. Fourth Edition, Thoroughly Revised and Greatly Enlarged. Handsome Octavo of Thirteen Hundred and Sixty-three Pages, with Five Hundred and Fifty-one Text Illustrations and Thirty-nine Full-Page Plates, Many in colors. Philadelphia, New York, London: W. B. Saunders & Co. Cloth, $7.00; Sheep or Half Morocco, $8.00.

Of the three former editions of this work nearly forty thousand copies have been disposed of. Its sale, indeed, has been the wonder of the medical publishing world. In this present edition every chapter has been extensively modified, and many of them have been partially, and some entirely, rewritten.

A TEXT-BOOK OF OBSTETRICS. By J. Clarence Webster, M. D. (Edin.), F. R. C. P. E., F. R. S. E., Professor of Obstetrics and Gynecology, Rush Medical College, in Affiliation with the University of Chicago; Obstetrician and Gynecologist to the Presbyterian Hospital, Chicago; Obstetrician to the Chicago Lying-in Hospital and Dispensary, Chicago, etc., etc. Handsome Octavo Volume of Seven Hundred and Sixty-seven Pages, with Three Hundred and Eighty-three Illustrations, Twenty-three in Colors. Philadelphia, New York, London; W. B. Saunders & Co. Cloth, $5.00; Sheep or Half Morocco, $6.00.

This work has been written for the student of obstetrics, as well as for the active practitioner. The anatomic changes accompanying pregnancy, labor, and the puerperium are described more fully and lucidly than in any other text-book we have seen. The exposition of these sections is based mainly upon studies of frozen specimens, in which department the author has had a larger experience than any other worker. Unusual consideration is given to embryologic and physiologic data of importance in their relation to obstetrics.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES. Embracing the Entire Range of Scientific and Practical Medicine, and the Allied Sciences. By Various Writers. A New Edition, Completely Revised and Rewritten. Edited by Albert H. Buck, M. D., New York City. To be Published in Eight Imperial Octavo Volumes. Illustrated by Chromo-lithographs, and over Five Thousand Engravings. Vol. VII, Illustrated by Chromo-lithographs and Six Hundred and Eighty-eight Half-tones and Wood Engravings. New York: William Wood & Co., Publishers. Sold by Subscription. Price, per Volume, Extra English Muslin, $7.00; Brown Leather. Raised Bands, $8.00; Extra Turkey Morocco, English Cloth Sides, $9.00.

This superb work covers so wide a field, and embraces such a great variety of topics, as to make it of the greatest practical utility, not only to general practitioners, but also to those who are interested more particularly in special departments of medical knowledge. This is by far the leading work on the broad domain of medicine, surgery and the allied sciences.

A PRACTICAL TREATISE ON NERVOUS DISEASES. For the Medical Student and General Practitioner. By F. Savary Pearce, M. D., Professor of Nervous and Mental Diseases in the Medico-Chirurgical College of Philadelphia; Fellow of the College of Physicians of Philadelphia; Neurologist to the Philadelphia and Howard Hospitals, etc., etc. Colored Frontispiece and Ninety-one Illustrations in the Text, Many in Colors. New York and London: D. Appleton & Co., Publishers. Price, $3.00.

This is a common but an intricate subject, and the author has given prominence to the practical facts in the study of nervous disorders. The chapter on anatomy and physiology has been blended so that its study will show a pretty clear study of the anatomy and functions of the various parts of the nervous system. All in all, the work is worthy of special reading by both the student and practitioner.

ADOLESCENCE, Its Psychology and Its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion and Education. By G. Stanley Hall, Ph. D., LL. D., President of Clark University, and Professor of Psychology and Pedagogy. New York: D. Appleton & Co., Publishers. Price, $8.00.

We wish to state that this work is based on the author's book on psychology. As we grow old such thoughts crowd upon us and we eagerly grasp the volumes devoted to the things that interest us most, but why not begin in early manhood to study the possibilities of age and its physiological sequences. It is far better to begin at the early stage of life and frame your existence for the adolescent period, so that your friends will say how young he looks and how well preserved in his old age. This is a work that has a mint of suggestive ideas and should be in the hands of all who can profit by suggestions that are made for the good of humanity.

A TEXT-BOOK OF DISEASES OF WOMEN. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania; Gynecologist to the Howard, the Orthopedic, and the Philadelphia Hospitals. Handsome Octavo Volume of Six Hundred and Seventy-five Pages, Sumptuously Illustrated with Some Six Hundred and Fifty Mostly Original Illustrations, Many in Colors. Philadelphia, New York, London: W. B. Saunders & Co. Cloth, $5.00; Sheep or Half Morocco, $6.00.

This latest work of Dr. Hirst's is on the same lines as his "Text-Book of Obstetrics." As would be expected from a

practical teacher, diagnosis and treatment have been given particular attention. The palliative treatment, as well as the radically operative, is fully described, enabling the general practitioner to treat many of his own patients without referring them to a specialist.

A TEXT-BOOK OF OPERATIVE SURGERY. Covering the Surgical Anatomy and Operative Technic Involved in the Operations of General Surgery. Written for Students and Practitioners. By Warren Stone Bickham, Phar. M., M. D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York; Late Visiting Surgeon to Charity Hospital, New Orleans, etc. Handsome Octavo of Nine Hundred and Eighty-four Pages, with Five Hundred and Fifty-nine Illustrations, Entirely Original. Philadelphia, New York, London: W. B. Saunders & Co., Cloth, $6.00; Sheep or Half Morocco, $7.00.

This work completely covers the surgical anatomy and operative technic involved in the operations of general surgery. It is constructed on thoroughly new lines, the discussion of the subject being remarkably systematized and arranged in a manner entirely original. A feature of the work to which we would call especial attention, and for which alone it is well worth the price, is the wealth of magnificent illustrations.

A NON-SURGICAL TREATISE ON DISEASES OF THE PROSTATE GLAND AND ADNEXA. By George Whitfield Overall, A. B., M. D., formerly Professor of Physiology in the Memphis Hospital Medical College. Chicago: Rowe Pub. Co. For sale by the Author. Price, $1.00.

Surgery has played such an important part in treatment of the prostate gland that it has become *fashionable* to cut, yet has it been the most successful method? Judging from the practical and concise manner as stated in this work, the non-surgical treatment seems to be the most rational way. Read and reflect.

MEDICAL DIAGNOSIS. Special Diagnosis of Internal Medicine. A Handbook for Physicians and Students. By Dr. Wilhelm V. Leube, Professor of Medicine, and Physician-in-Chief to the Julius Hospital at Würzburg. Authorized Translation from the Sixth German Edition. Edited, with Annotations, by Julius L. Salinger, M. D., Late Assistant Professor of Clinical Medicine in the Jefferson Medical College, and Physician to the Philadelphia Hospital. With Five Colored Plates and Seventy-four Illustrations in the Text. New York and London: D. Appleton & Co. Price, $5.00.

This is a practical work which, describes disease and the various differential points in such a lucid manner that it has been recognized as a storehouse of bedside knowledge, and in twelve years six editions have been printed, and the request for copies increases constantly. The author has had great success, as shown in his work, in the diagnosis of internal diseases, never attempting the impossible. The accuracy of diagnosis is nine-tenths of the battle, and rational treatment thus becomes a science.

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This quarterly has become so firmly established and so favorably known to the profession that a mere mention of its issue should be sufficient for all purposes.

ASEPTIC AND ANTISEPTIC PREPARATIONS AND TREATMENT OF EMERGENCIES AFTER ABDOMINAL SURGICAL OPERATIONS. By George Wackerhagen, M. D., Ex-President Brooklyn Surgical Society, etc. New York: E. R. Pelton, Publisher. Price, $1.00.

This work is intended as a practical and condensed system in preparing for abdominal operations and in the treatment of emergencies as they may arise. We are of the opinion that such a work is really a necessity.

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Editorial.

Names Instead of Principles.

One sometimes wonders why it is that political parties, schools of medicine and religious sects do not at all represent the ideas which they once did. The real reason is that men follow names instead of principles.

When a man joins a particular body, political, medical or religious, he thinks he has done about all that is required of him. The management of the organization is delegated to the officials in charge; few members ever stop to inquire whether the organization is living up to the principles responsible for its existence. Probably many people if suddenly called upon to give an intelligible account of the principles embodied in the name of their particular church or political party would find themselves at a loss. They are Democrats or Republicans, Methodists or Baptists, and that is enough for them.

In other words, the constant obstructions to progress on every hand are due to the fact that we let the other man do our thinking for us. When the other man is the official of a powerful organization, this becomes a very serious matter, for he has at his command the machine-made opinion of large numbers, against which few men have the courage to stand.

Do you know that thinking is hard work. It is so much easier to let the other fellow do it for you, but if he does, he will certainly want you to do as he says. The average man usually has some axe to grind; if he is an organization official, you may be sure of it. When an organization does the thinking for its members, it is always with the supreme benefit of a few prime movers in view. They are the insiders, and use the organization for their own purposes.

It is the same old story of the trusts—floating a combine with big bonuses, and a first chance at the stock market for the organizers, the rank and file to do as they are told, and take what they can get.

We write along these lines at the request of many doctors, who enjoy the discussion of such topics, and like to cultivate their powers of logic by the analysis

of situations and conditions. All intelligent doctors appear to be interested in the whys and wherefores of social, economic, political and religious, as well as medical problems.

The greatest compliment ever paid to doctors was when the politician said, "*He makes a poor follower*," that no one could count on him. The reason is obvious. Diagnosis has trained the doctor's mind to look for the causes of effects, and this logical habit is easily and naturally transferred to the consideration of other subjects. It has also bred a thirst for knowledge, for truth, which few doctors can successfully resist.

The organization which seeks to have the doctor adopt certain fixed ideas, and expects to carry out cut and dried plans by means of the machine to which the doctor may belong, will get an unexpected check when the doctor finds what is expected of him. It will not be able to use him at all, and great will be the astonishment. What a compliment to the doctor.

Independence and Liberty.

Independence and liberty are the greatest boon the individual can have. It is a wonder in this age of the world that every man does not appreciate it. Labor unions and machines of all kinds are mankind's greatest bane, forever encroaching on the liberty and independence so essential to his well-being.

Any man who will read the following quotation can not help but see that Australia and New Zealand are suffering from the fact that labor unions have succeeded in getting control of the country, and are gradually bleeding it to death.

It also shows the fallacy of the idea that governmental control is of any benefit to the individual:

"*I would not invest a dollar in Australia*," declared William Franzen, of Milwaukee, according to the *Sentinel* of that city, on his recent return from a four months' tour of Australia, Tasmania and New Zealand. "The investor who puts money into that country loses control of it at once. The Labor party has complete control of every part of the government, from the courts down, and the manufacturer has absolutely no show. As a result, individual conditions are demoralized, and no outside capital can be induced to go there.

"When men want an increase in wages, they do not go to their employer and ask him for it. No; the first thing the employer knows is a notice which is served upon him to appear before a certain court on a specified date. Then he must bring in all of his books, and explain just how much money he has made, how much he is paying his men, and give every detail of his business. When this is done, the court invariably decides that he should pay his men more, and orders him to do so. Of course he can appeal. A board of arbitration is provided for that purpose. But he fares even worse here. For not only will this board decide that he must pay higher wages, but it will fine him for not having paid higher wages to begin with. So completely are the courts in the control of the Labor party, that a manufacturer can secure no justice in them.

"Nor are the laboring men gaining anything by all of this. They are slowly but surely killing off the industries of Australia, and to-day they are getting less wages than they were four or five years ago before this system was in vogue. They absolutely control the output of the factories, and the law limits the amount each man shall do.

"One of the things which attracted my attention was to see a red flag hung on a pole in one of the big public parks. I went over to it, and found an agitator haranguing the 'unemployed.' It seems that a red flag is the means by which they call together these gatherings, and then the agitator tells them how they are oppressed.

"The government owns the railroads and the cities own the street car systems. But so overrun are they by ward heelers and politicians that the service is exceedingly poor, and they are conducted at a loss to the government. I asked one of their politicians about this, and he told me that they were not running the railroads to make money, but for the accommodation of the people. But as they charge considerably more than our private railroads do, this accommodation seems a little out of the way."

The above shows that the American government, as formed by our forefathers, is the best of all methods for guaranteeing the liberty and independence of the individual. We should be eternally on our guard against everything which tends to subvert its principles. No man or set of men, whatever any one may have to say about it, should be allowed a share in controlling the individual. If we do, we simply prepare the way for a return to monarchy.

The more we think about it, the more we see how wise were the founders of the Republic, and how great is the trust left in our hands. It is ours to keep faith with the men who gave their all to ensure liberty and independence to posterity. We are bound by all that men hold sacred, as well as by the most everyday considerations of common-sense, not to favor any class of men as against the individual.

Truth Versus Authority.

Since the birth of the MEDICAL BRIEF, in 1873, some thirty-three years ago, the fashions in medicine have changed with almost as much regularity as the styles in dress.

The time was when the Editor of the MEDICAL BRIEF was accused of being unscientific simply because he would not endorse tuberculin.

The MEDICAL BRIEF well remembers being laughed at in its early years because the Editor so strenuously advocated the outdoor treatment of consumption. The value of fresh air in this disease is something the Editor learned from his own experience while a Confederate soldier, and necessarily exposed to the hardships of such a life. The outdoor life greatly strengthened him, and he doubtless owes his immunity from consumption and excellent health, to the good fortune which made him a soldier at a critical period.

Nevertheless, we well remember how much fun was poked at the BRIEF for advocating the fresh air treatment of consumption, and how it was called unscientific because it would not accept tuberculin. What scientific man would use tuberculin to-day?

The constant coming and going of fads should prove to all men the necessity of seeking for truth instead of relying on authority. By studying all sides of a question with prejudice neither for nor against anything, we arrive at the individualistic standpoint, able to form opinions of our own, not having to accept or rely upon authority.

Authority is simply one man's opinion. It may or may not be true *so far as it goes.* The great number of fads show how often it is not true. The man who sets up as an authority is exposed to the temptation, after he has taken a stand, to uphold his authority even at the cost of truth. He is often unconsciously biased and partisan in his views. He may become obstinate and arbitrary, as the Church did, in the face of progress.

Authority has always been the bane of progress. Each man should follow truth to the best of his ability, wherever his light may lead, and beware of dogmatism on any point. When he finds what he believes to be truth, let him adopt it, whatever authority may say to the contrary. It is authority in politics, religion and medicine, which so often turns the tide against truth and progress. When we reach certain points, authority steps in and turns us backward. What every man—the scientific man most of all—wants, is truth under any and all circumstances.

Joiners.

There is a class of men in every community who are ready to join any society, whether political or anything else. They do not stop to think, when joining an organization to promote this or that, where such a step will lead. The organization which promises abstract benefit really takes away the liberty of the individual, using him in the interests of a few who started the movement to organize.

Those who love power and authority, or who desire to accomplish particular ends, understand the necessity of a machine which they can manipulate or bring to bear where resistance is offered.

But what has the organization to offer the individual? Is it not the re-embodiment of the monarchical idea? The fundamental principle of our government is the guaranteed right of every man to life, liberty, and the pursuit of happiness. The

organization interferes with the practical application of the underlying principles of our government.

The labor union interferes with a man's right to work how, when, and for whom he pleases; the medical union says to the doctor that he shall not think, judge, nor act for himself; the political organization places party success before the welfare of the State, and patronizes graft.

Our government is the highest form to which humanity has attained. It was bought with blood, tears and suffering, which our easy-going age can scarcely appreciate. All that we have and are, as a people, is the direct result of the liberty, the opportunity, which it ensured to us.

The old arrogant and tyrannical ideas of government are by no means dead. They are constantly springing up in new forms, and seeking to fasten themselves on mankind through the agency of the universal and ubiquitous politician, for whatever be his calling, the politician is always the same, and pursues the same methods.

The Constitution can not ensure free government if the spirit of constitutional liberty is constantly denied by the existence of organizations which are in direct opposition to its provisions. The Constitution will become little more than a huge corpse, a monument to what was and what might have been; the organizations will have all the power; the individual exist at their pleasure.

You may think this is exaggerated. Did you ever run across a desperate man whose union ticket had been taken from him because he refused to go out on strike when there were sickness and need in his home, and who, consequently, can no longer get steady work?

Did you ever meet a doctor whose doom had been pronounced unless he changed his climate, and who, in addition to the hardship and expense of re-establishing himself in an unknown community, had to pay a fee and submit to an examination before he could earn a dollar?

Did you ever hear a shopman describe how his little business had been ruined by the ban placed on it by political organization, trust or labor union?

Liberty is the soul of things. It is the vital spark animating our institutions, and making possible the conditions which make for progress and prosperity. Liberty is the American's birthright, and he does not give very much thought to it, but it is time he was waking up to a realization of its importance to him. The mania for organization is abroad in the land, and the unthinking join without stopping to consider anything but the claims made for the movement. Indifference, carelessness, thoughtlessness, have killed nations before, and no matter how great and flourishing our material prosperity may appear, unless it is rooted in the soil of liberty, it can not endure.

The Yolk of Egg and the White of Egg Cures.

Read the following statement of the respective values of the yolk and the white of the egg, as made by different persons, and tell us who is right. There is an old saying, "Who can decide where doctors disagree?" Who can add to the knowledge on this subject? We asked an old country practitioner, who happened to be in the office, what he thought about it. He said he guessed Nature knew what she was about when she made the whole egg—that in most cases the whole egg beaten light and given raw would fulfill the indications.

"The yolk of egg cure is a diet in which all or most of the fat and heat-making substance is furnished by this part of the egg. The yolk is said to be the least bulky, least burdensome to the digestive organs, the richest in heat units, and the most powerful conservator of the tissues. The average yolk contains seventy-five to ninety grains of fat, almost all of which is assimilated, as shown by the small percentage of free fat in the feces, considerably less than where milk is used.

"The raw yolk, beaten up, leaves the stomach in about an hour. It stimulates normal gastric secretion, and contains a diastatic ferment, which assists in the digestion of starchy foods. Yolks may be used in hyperchlorhydria, and in all conditions where there is a diminution in the flow of gastric juice.

"The yolk of egg contains lecithin, which aids in restoring nerve force, a most important factor in the relief of

neurasthenic states, based on impaired nutrition.

Any idiosyncrasy for eggs, which is occasionally met with, is attributed to the white of the egg, which is slower and more difficult of digestion, and, therefore, liable to result in the formation of hydrogen sulphide and ammonia.

"The yolk of egg is a food well borne and liked by the majority of people, something which can not be said of many fatty foods. Easily digested and assimilated, it will increase the body weight, and restore the normal resistance of the tissues after other feeding systems have been tried and rejected."

* * *

"A man who has studied the chemistry of the body will not make the mistake of using the yolk of the egg. The white contains the nitrogenous elements, albumen and globulin, which are easily digested and assimilated, while the fatty substance of which the yolk is mainly composed, develops a poisonous product known as choline during the process of digestion. When this product is absorbed, it gives rise to symptoms of biliousness. The same patient who may be made bilious by one entire egg, can take a number of raw whites daily without trouble, and steadily improve on the diet. Babies are often benefited by a diet of the whites of eggs dissolved in water, and a little sugar and milk added, or a little salt and lemon juice, as the case may be.

"The globulin of the egg is not soluble in water, and will be precipitated. It should be filtered out."

* * *

These diametrically opposed views show how necessary it is for us to read both sides of a question to find out what is right, and to keep the mind free from prejudice. No man can afford to dogmatize on any subject. Undoubtedly, both of these men are honest in the views they take. Undoubtedly, too, there are times and cases where one or the other parts of the egg best answers the purpose. The man who has no prejudice is able to judge what is right in the existing condition.

How Long?

How long will the American doctor submit to be dictated to as to what he will prescribe by the continental foreigner?

The Virginia *Medical Semi-Monthly* hits the nail on the head when it says, editorially, in the January number:

"A few years ago it was common—it was fashionable—for doctors to prescribe various proprietary articles of foreign manufacture. It was all right in those days to prescribe those things. But soon the American took hold of the idea, and began to prepare equally neat, equally palatable, equally useful products, when all at once the prescribing of such things became all wrong."

You see? It got to be wrong when the American began to compete with the continental foreigner in America, his own country.

Does the foreigner have any influence with the *Journal of the American Medical Association?* Watch it and see. You will find that American products are decried in the interests of German patent medicines. Can anyone say, in the face of this, that organizations are not used for the benefit of the few?

Listen to what the American Association of State Medical Journals proclaimed at its last meeting in Atlantic City: "If a product is marketed under a copyright name, the manufacturer shall furnish with it the proper chemical name, and if not patented, then also the process of manufacture."

Do you see the nigger in the wood-pile in this?

Why do they require the process of manufacture? If the manufacturer gives away his process, everybody can make the preparation to its great detriment, whereas the patented article has no competition. Anybody can see this who can see anything.

Does anyone believe that the American doctor can be hoodwinked by any such stuff as this? These fellows forget that this is America, not Germany. Does not everybody know that the doctor who has used these much-decried preparations, some of them fifteen or twenty years or more, and gotten satisfactory results, is going to continue to use them, without regard to what any continental

manufacturers, or their agents or hirelings, may say or do through the American Medical Association or elsewhere? It is possible to fool the ignorant man, but not the American doctor, who is an intelligent, able and educated man. He is going to do just as he pleases. The fellows who think they are going to use him can not do it. They will find they will fail every time.

Machine Medicine.

In a recent editorial the MEDICAL BRIEF spoke of the drift toward State medicine, and showed the dangers of the same. The State has no more right to interfere in medicine than in religion, yet if we do not look out we shall have State medicine, nevertheless. A bill has been introduced into Congress recently to incorporate the American Medical Association, giving it the power to make laws, rules and regulations.

Section two gives as a reason for corporate existence the intention to promote science. Section three asks for all the usual powers and rights of a business corporation.

Now, stop and think what this means. Most of us are familiar with the history of the great commercial corporations—the trusts. Their use of the great machinery under their control to oppress and wipe out individual businesses, the heavy tax laid upon consumers through the possession of monopolistic power, does not make the thought of a great medical trust particularly alluring, does it?

Suppose the Methodists, Baptists, or other sect, should incorporate to promote religion. That would mean Methodism or the doctrine of the Baptists, would it not? And what would be likely to happen when the doctor or the people disagreed with the "promotors" as to what constituted science?

The power which the Church once exercised would be as nothing beside that which such an organization would wield over the medical profession and the people. Every act of the doctor would be subject to the approval of the trust. He would be a minor subordinate working under orders, allowed no discretion, likely to be called up and disciplined for expressing a dissenting opinion or adopting an independent course of action.

It is best to have a clear understanding of what the situation will be before we become so tied up that we are helpless. Do you not think we have about enough medical law now? If, for family or other reasons, you want to move from one State to another, you, who have been practicing medicine successfully for years, have to submit to an examination, and pay a fee before you can earn a dollar just like the tyro fresh from college.

We are not opposed to the American Medical Association, *per se*, nor to any body of men who voluntarily associate themselves for purely scientific or social purposes, but all history and all knowledge of human nature show the danger of placing great power in the hands of any set of men. Men are men, not angels, and the possession of great power dehumanizes. There are not a hundred men in the world, however great and good, that it would be right or safe for the doctor to place his liberty and welfare in their hands.

The history of machinism, whether in politics, religion or medicine, is and always will be one of tyranny and mediocrity. Inefficiency and abuse of power are inseparable from a system which develops bosses at the top and puppets at the bottom.

Do we want a few Czars controlling a powerful machine in which we are only the pegs? Is it not astounding that any set of men should have the temerity to ask to be made the masters of the medical profession?

Do not entertain any illusions on this point. The history of organization in medicine will be the history of organization elsewhere. The stoppage of progress, the encouraging of authority, the emasculation of the doctor, the inevitable dissatisfaction and unhappiness in the cramping of development, to say nothing of the practical restrictions and handicaps placed on the physician, are results certain to follow as they have always followed the rule of the machine.

Do you like to be dictated to? Do you enjoy acting or thinking according to someone else's ideas instead of your own? Do you want to be told what you must

prescribe, what you should read, how you should think on various questions? Medical organization is much like a Punch and Judy show, and if you do not like being a puppet you are better off outside of one.

Did you ever stop to think how the working of this autocratic spirit in medicine has shorn the doctor of his rights? We are accumulating vast stores of mental rubbish, and elaborating a drawn-out system of imparting the same. Then we tie each other up with legal red-tape, and try to make an organization to do the thinking for the profession.

Thinking and study is the only way to get an education, and it requires the atmosphere of liberty. The facts which serve as a basis for thought a man will get somehow. Doctors will go on investigating and drawing conclusions until the end of time because Nature is stronger than machines, but if they will use a little common-sense and foresight they will save themselves and the people a great deal of harmful experience by setting themselves determinedly against the evils of machine medicine.

Investigate.

The more you investigate the merits of the MEDICAL BRIEF the better satisfied you will become that you can not afford to do without it.

The Wise Guy.

It seems to be in the nature of things that we should come in contact with the wise guy once in a while. He is the fellow who tells the doctor what medicines he should or should not use on pain of being unethical. He is the fellow who wants to compel the doctor to do what he says, or what the organization says, for usually he is the figurehead of an organization with some axe to grind.

The wise guy calls himself a chemist, and selects some remedy of real value, regardless of the fact that it has long been used by the medical profession, which he "analyzes" for the purpose of damning it because he wants to recommend something enshrouded in hieroglyphics of chemical nomenclature, so cunningly devised that the average physician is lost in amazement that a fellow should know so much.

The wise guys are generally financially irresponsible, but love to fight the products of American manufacturers in favor of anything not made in their own country.

Be Practical and Self-Reliant.

The average doctor is not a good business man, not because he lacks the capacity, but because he has been taught to look at things from an absurdly Quixotic standpoint. Also many men become so much absorbed in the professional side of their careers that they lose sight of the financial question. Here and there we find a doctor who is an exception to the rule, and it would be a good thing for the profession if its members would study the methods of the exceptions.

The prosperous practitioner relies on himself in all things. He early learns to think out and decide matters for himself. He realizes the value of system, and the importance of capital in a profession as well as a business. The doctor who does not succeed financially does not stand as good a chance professionally, simply because he has not the means to equip himself. It takes money to keep abreast of the times, to subscribe for journals and magazines, money to buy new books and instruments, money to take a post-graduate course, and so on.

To succeed either as a business man or professionally, the doctor must learn to look at things practically, and to rely absolutely upon himself. The movement to organize the profession will not benefit the individual doctor in the least. The organizer makes no attempt to educate or to reason with those among whom he works. That would not suit his purposes. He relies on ridicule or attempts to inflame their prejudices. The organizer is not paid to enlighten the profession. His business is to get them into such a frame of mind that a few men at the head of the movement can use them for their own ends.

The organizer, like most politicians, has no capital but words. Of these he makes free and picturesque use, and the doctor,

since his student days, is used to being "talked down" to. He is told what he ought to do, the sacrifices he should be willing to make, that it is his duty to put a ban on this, that and the other, all in the name of a common profession. The so-called ethics of medicine is set up as a huge idol before which the poor doctor is asked to prostrate himself and let it crush him rather than lift his voice in dissent.

Now, then, what are you going to do about this? Are you going to sit down tamely, and have all your rights taken from you to benefit the self-assertive, egotistic, narrow-minded few, or are you going to preserve your independence, build up a reputation for yourself, look out for your own interests? The man who wants to benefit you, who offers to help you, invariably has a price whether it appears in the transaction or not.

The man who becomes part of a machine sinks to a lower level every day. He lacks the stimulus which supports and urges on the self-reliant man.

Liberty means that you can look for knowledge in other schools than your own particular pathy, that you are not limited to one set of remedies, that you are not compelled to swear by a fad, that you can say what you please, and act without consulting anyone. It means that you can use what seems best to you in a professional way, and thus get the benefit of your researches. It means that the liberal policy you are following, the constant demands on the best there is in you is bound to result in growth and progress, and the joy that is born of them. The man who struggles, the man who dares, the man who holds his independence dear, is the man who climbs the heights of achievement, and knows how good a thing it is to live.

How to Have Universal Peace.

There is one method by which the world can have universal peace, and at the same time avoid the yellow peril now looming up before us in the shape of a coalition between the Japanese, Chinese and other yellow races. That is to equip the United States with the finest navy in the world. Then by joining hands with Great Britain, the great Anglo-Saxon race will become a unit in action, and can compel the peace of the world.

This would have more effect than all the arguments, religious, moral or political, in the world. In fact, it has become an absolute necessity that the United States should possess the finest navy on earth. The greatest of nations should have the means to make itself respected. It should be represented by a navy which can command attention wherever one of our ships sails into a port.

The Oriental character is not the stuff out of which good citizens, as we understand citizenship, is made. They are good fighters through the strength of their superstitions rather than any true idea of patriotism. The Oriental soldier is inspired by the belief that to be killed in battle increases his chances of eternal happiness. It is a desperate recklessness rather than what the Anglo-Saxon recognizes as courage. The Anglo-Saxon carries common-sense into all that he does. He is cautious as well as brave. He strikes when striking is effective, and does not foolishly disregard the odds.

Progress and the best interests of humanity depend upon the ascendancy of the Anglo-Saxon race. The race should put itself into a position where this ascendancy must be recognized. Such a step will put an effectual quietus on the pretensions of the yellow races. If left to go their own way, they will be a constant menace to peace, keeping the world in a turmoil, injuring trade, discouraging enterprise, bringing progress to a standstill.

The American people should look at this from a practical standpoint. President Roosevelt is right in wanting us to have a navy commensurate with our rank and strength. When Great Britain and the United States possess the navies which they should have, they will be in a position to dictate and enforce peace. It is time the world was becoming more practical and less governed by sentimental considerations. A navy appropriate to our size and strength and an alliance with Great Britain will enable us to ensure the peaceful and prosperous development of the world's commerce and affairs.

We have received a good many letters from doctors who are interested in topics of this kind. They are universally of the

opinion that the United States ought to have the finest navy in the world—that it should lead the world in this as in other respects. The doctor usually sees things from the right standpoint.

The Diagnostician.

Diagnosis is the most important thing in the practice of medicine. All men do not have this power in an equal degree. It requires a faculty for close observation, quick perception, a logical order of mind.

Why should not the man who is looking about him for a specialty, and who possesses these qualifications in a high degree, select diagnosis? There is such a thing as a lawyer's lawyer, why not a physician's physician? To be a success as a diagnostician, however, the man who elects to make it a specialty should never allow himself to prescribe for a patient under any circumstances. To do so would be to forfeit the confidence of the practitioner, to create uneasiness and friction, and thus hamper his usefulness.

There is a real field, especially in cities, for a man who shall give all his time and powers to the subject of diagnosis, one who possesses the necessary qualifications for the part. There is no better opening for a man of ability to-day. Many doctors would be glad of an opportunity to call to their assistance a mind trained in diagnosis to clear up obscure points, with the assurance that there is no danger of the patient being taken away from them.

There are many physicians who are well up in *materia medica* and therapeutics, perfectly capable of treating a case successfully once the trouble is clearly apprehended. Correct diagnosis is the key to successful prescribing. When a case has anything peculiar about it, or proves intractable, the assistance of the expert diagnostician will prove invaluable. The little things which escape the eye of the general practitioner may be the means of reaching a correct diagnosis, after which the treatment resolves itself into a very simple thing for the physician who is well posted on his *materia medica*.

A man may have several talents, but one usually exceeds the others. If you will allow us, the Editor of this journal will illustrate this point from his personal experience. While devoted to medical journalism, most of the money he has amassed has come to him through the buying and selling of real estate. It seems that whenever he picks out a piece of property for an investment, somebody always wants to give him more money for it than it cost him. As a result, the Editor has made some money in this way, and if he did not love medical journalism for its own sake, and had to follow a business for the money there is in it, he would devote all his time to the buying and selling of real estate.

Doctor, find out what you are best fitted to do, and give all your powers to that. There is a fine opening for a man whose diagnostic faculty is of a high order, but should you select this field, do not let yourself be tempted to prescribe. If you do, you will stand in your own light. Do not permit yourself to make the faintest suggestion as to treatment, even if so requested. To do this would be to cast doubt on your good faith. When you have made your diagnosis, step aside, your work is done.

Serum.

Suppose you stop and think about this serum question a moment.

If you should take the serum of a dead man, which, as you know, is highly poisonous, and add enough carbolic acid or trikresol to make it absolutely inert, it would be safe for you to inject it into a living man. If, now, this man were suffering from a disease, and good results followed the injection, would you not ascribe the improvement to the antiseptic rather than to the inert serum? How can it be the serum, when that has been killed, its identity destroyed, by the action of the antiseptic?

This is precisely the condition antitoxin is in to-day, and in spite of the money invested in its manufacture, and the various interests tied up in it, the serum idea is on the decline, and no power on earth can stop its passing out of use in the course of years.

The friends of authority in medicine can no more prevent this from coming to pass than the friends of the clergy in the dark ages could stem the rising tide of investigation, individual opinion and pri-

vate judgment which at length swept away the power of the Church, resting as it did on usurped rights, superstition, and an arbitrary assertion of authority.

Authority, we are glad to say, in every department of life, is on the decline. As men become more intelligent, they insist upon the right to investigate; they want to know the facts for themselves, and to do their own thinking. Superstition and mere assertion have little hold on them to-day, and these are ever the bulwarks of authority.

Whatever anyone may say, we believe, and dare assert, that there is no virtue whatever in antitoxin except in so far as the antiseptic is concerned. The medical profession being an intelligent, broad-minded class of men, with few prejudices, will think no less of the Editor for standing up for his views, even if they believe he is in error. It is only by allowing every man to have his say that we shall ever get at the truth.

Did you ever stop to ask yourself why you seldom hear of fatalities following the use of the serum nowadays? Is it not because pains are now taken to render the serum inert? If you use enough antiseptic to absolutely sterilize the serum, why not ascribe any therapeutic effect which may follow the use of antitoxin to the antiseptic rather than the serum?

With this question we leave the subject for your consideration.

[Written for the MEDICAL BRIEF.]

Reminiscent Chats.

BY OLD DOC.

Hello, boys, what shall we talk about this time? After all, one doctor can't teach another much except in the way of suggestion. He can throw out a few hints, but each man has to learn for himself what a medicine is good for. They all have their special uses. No man can confine himself to any particular class of remedies, and be a successful doctor, or make any progress in knowledge of therapeutics. Study indications carefully, and prescribe what seems best to you. When you hit the nail on the head, stick to the preparation that did the work for you. Don't let yourself be prejudiced against a good remedy by what somebody else may have to say about it. I use some proprietary medicines because I get good results from them; others I don't use for a similar reason. Find out for yourself what is good, and use your own commonsense, judgment and experience in prescribing.

Say, boys, don't make the mistake of giving belladonna preparations where you have a dry skin.

Bromides, as you know, are always indicated in all forms of congestion in the head; hence, you will find them useful in bad colds, where the nose is stopped up, eyes running, etc.

Modern investigation confirms the high esteem in which colonial doctors held native asclepias. Nothing acts so nicely in fevers and states of scanty secretion as preparations of asclepias in solution.

Say, try sulpho-carbolate of soda in ten-grain doses every two hours, taken dry on the back of the tongue, for tonsillitis.

Salicin is fine for cases of acute rheumatism where salicylic acid or the soda salt upsets the stomach.

Xanthoxylum is a good remedy in certain cases of chronic rheumatism.

Say, don't forget that minute doses of aconite and ipecac, at frequent intervals, will reduce the temperature safely and surely in acute respiratory disorders.

In prescribing alkalies to correct over-acid urine, remember to tell the patient the dose should be taken *after* meals. Bitters, on the contrary, should be taken before meals, and if they are to be taken for any length of time, they should be alternated.

Say, boys, when patients suffer from indigestion, yet have a good appetite, the trouble is usually to be found in the intestine.

In catarrhal conditions of the stomach, an infusion of the bitter principle is the best preparation to use.

In some cases, the aromatic oils act better than the bitter principles.

Say, boys, iron is a good medicine, but it takes discretion to use it to advantage. Never give it when there is a full state of the veins.

Drop doses of tincture gelsemium will often give quick relief in neuralgia of the fifth nerve.

Nine times out of ten you can relieve a jumping toothache by cleaning out the cavity and packing it with acetanilid.

Say, try this combination to head off chills: Acetanilid, one part; capsicum, two; quinine, three. Give five or ten grains of this mixture four hours before the chill is due, and follow it up with two to four-grain doses every hour for three doses.

The expressed juice of stramonium, mixed with vaseline, and rubbed into bald heads will make hair grow like sixty.

Phosphaturia can often be relieved simply by resorting to a flesh diet, using less vegetable food for a time.

It may almost be considered an axiom that with a temperature above 101° F., any food other than the juice of fruits is of no good to the patient.

There is nothing better than pure olive oil in diseases of the excretory ducts of the body.

Say, don't forget collinsonia in hemorrhoids, and keep the bowels soluble.

A few drops of glycerine on the tongue will often relieve a laryngeal cough.

Glycerite of starch is the best vehicle for applying astringents to the eye.

Say, try an application of ten drops each chloroform and tincture of aconite for the relief of sciatica.

A good diet for babies suffering from scurvy is fresh milk diluted with oatmeal water, with one or two teaspoonfuls of fresh beef juice, squeezed from a rare steak, three times a day, and a similar amount of fresh orange juice.

Benzine is the best thing for cleaning the skin after ointments have been used. It is also useful in removing sticking plasters.

When people are all the time complaining of headache, you may be sure it is caused by dyspepsia, constipation or liver disease.

Well, so long, boys, see you later.

I am an admirer of the MEDICAL BRIEF, and have been for thirty years.—W. L. LEISTER, M. D., Rogers, Ark., Associate Editor *American Med. Jour.*

[Written for the MEDICAL BRIEF.]

The Therapeutic Effect of Carbonic Acid Gas in Chloriasis, Asthma, Emphysema of the Lungs.

BY A. ROSE, M. D.,
New York City.

(Continued from page 204.)

1. Chloriasis (incorrectly called chlorosis).—Eleven girls, varying in age from sixteen to twenty years. The circumstances surrounding them were most unfavorable in regard to health. All these patients belonged to the poorer classes. They were obliged to earn their living by working in factories. Their fare was consequently a very poor one. In order to secure the results of the carbonic acid treatment pure and simple, nothing was altered in regard to their occupation and mode of living while under treatment. The cases selected were all of a severe form of chloriasis, and, except in one instance, were all of long standing, and had been under treatment, some having been treated by Ephraim himself.

One of these cases was not benefited by the carbonic acid gas; in two cases there was marked improvement, and in seven a complete cure ensued. An examination of the blood was made in nine out of the eleven cases, but was confined to estimating the number of red blood corpuscles. An unmistakable and, in most instances, a considerable increase in the number of red blood corpuscles was noted, although there was no examination made in regard to the amount of hemoglobin, Ephraim thinks that there must have been, judging from the improved general condition of the patients, an improvement in this direction. He admits that the improved condition of the patients may, to some extent be due to the fact that the administration of gas regulated the stools.

Even with these favorable results before us it would not be warrantable to speak of the introduction of carbonic acid gas as specially effective means for the treatment of chloriasis, but it may safely be said that it appears to be an excellent auxiliary in the treatment of this affection.

The result of the examinations of the blood supports the theory of Ephraim that the healing effect is due to an increased

introduction of oxygen into the blood. While I myself was treating a large number of children suffering from whooping cough with carbonic acid gas inflation of the rectum, I observed that those who were anemic improved markedly in regard to this condition under the treatment.

2. Asthma.—There were treated altogether twenty cases, ten of which were suffering from true bronchial asthma, five from neurasthenic asthma, three from emphysema of the lungs, associated with bronchitis and asthma, the nature of which could not be exactly defined. All the ten cases suffering from bronchial asthma were relieved from these difficulties for a longer or shorter period of time. The result, which was a surprise, considering that the affection is, as a rule, intractable to all sorts of treatment, induced him to publish the cases in detail. None of the patients were given any medicine, nor was any change in the mode of living ordered.

1. Flora S., thirty-two years of age, has suffered for seven or eight years from chronic bronchial asthma and slight shortness of breath. For one year attacks of dyspnea, which at first occurred in long intervals, but then became more frequent. During the last four weeks she has had an asthmatic attack lasting about half an hour every evening, which was accompanied with wheezing and blowing in the chest. During the night, patient slept little, and is obliged to sit up in bed.

Status praesens. Moderate emphysema of the lungs, diffuse and numerous rhonchi. In the sputum a very large number of asthma crystals. Heart normal. Patient can not go up more than one flight of stairs without resting. Treatment: Every afternoon she receives one injection of carbonic acid gas. After the second injection there were no more asthmatic attacks. After the fourth, the patient slept through the whole night without waking, and at the same time the cough began to diminish. After the eighth injection there were no more asthma crystals found in the sputum, after the eleventh cough was much diminished, rhonchi had disappeared, the patient climbed three flights of stairs without resting, and treatment was discontinued. During the next six weeks the patient remained free from attacks and from shortness of breath, then the symptoms reappeared.

2. Josefa S., thirty-seven years of age. Has suffered during the last year from slight attacks of bronchial asthma, which lately have made their appearance at intervals of from two to three days, and have lasted a few minutes. Percussion sound over lungs normal, and within normal boundaries, numerous sibilant râles. In the sputum, spirals and asthma crystals in large numbers. After the first inflation, one more attack, but none since. At the same time cough and expectoration became less, and râles were scarcer. Patient now climbs two flights of stairs in succession, while formerly she could not climb more than one without taking rest. Treatment discontinued after eleventh inflation. No further observation made.

3. Clara E., twenty-one years. For nine years has suffered from cough, and occasionally appearing dyspnea. In the last few years the latter comes on more frequently, and during the last two years almost every night. Since August 10, 1889, the attacks are very severe, and last from one to two hours. During the day slight shortness of breath, cough, and abundant expectoration.

Status praesens: Well pronounced emphysema of the lungs, diffuse sibilant râles, in the sputum numerous spirals, and a very large number of asthma crystals. Treatment with carbonic acid gas commenced August 15th. During the following seventeen days, one injection being given daily, the attacks appeared in undiminished frequency, but their severity was lessened soon after the commencement of treatment. This was noticed by the patient as well as by the mother. The amelioration progressed continually, so that after the seventeenth inflation there were no more attacks; the cough was, however, only little improved, and the râles could still be noticed. On the whole, twenty-eight inflations were made, and the patient was dismissed. Iodide of potassium with apomorphine was ordered. During the treatment the patient gained remarkably; probably because her sleep was much better, and undisturbed.

After fourteen days the catarrhal symptoms became less. During the following three months the patient remained entirely free from attacks, but subsequently from time to time a slight difficulty in breathing appeared, which has repeated itself often since the middle of April, 1890.

From this time on have occurred from eight to ten attacks weekly; they are, however, milder than the former ones. On May 2, 1890, the carbonic acid treatment was resumed. The result was about the same as before. The attacks assumed, even after the first inflation, the character of a passing oppression, and disappeared entirely after the nineteenth inflation. After seven more inflations had been given, the treatment was discontinued. Catarrh as well as shortness of breath were much improved. Climbing of stairs was much easier done than formerly. Up to date (five months after discontinuance of treatment) the attacks have not returned.

4. John P., sixty-six years. For two years has had asthmatic attacks, appearing only during the night, and lasting from one to two hours; during the last few months every night, during the day slight shortness of breath. Very slight emphysema of lungs, few râles. With the beginning of the carbonic acid treatment the attacks became shorter and lighter, and with the seventeenth inflation they ceased entirely. During the following days, once in a while, a little oppression, "as if I entered a smoky room," said the patient. After the twenty-second inflation, even these ceased. Patient now sleeps regularly the whole night through. At the same time his continual shortness of breath is remarkably better. After having received the thirty-second inflation, the patient was dismissed, being in an essentially better condition. During the next three months he remained free from attacks, then they recommenced in a mild form, and at long intervals.

5. E. H., sixty-two years. Barrel-shaped thorax, considerable emphysema of lungs, chronic bronchitis. Has had a severe asthmatic attack every evening for from five to six months. After the second inflation the attacks ceased; under continued treatment the catarrh improved considerably; patient slept all night long without, as was formerly the case, being disturbed by coughing. Dismissed after having been given the seventeenth inflation. Four weeks later the patient presented symptoms of insufficiency of the heart under which he died after a few days. In the meantime he had had no recurrence of the attacks.

6. Elizabeth P., twenty-five years. Pronounced sclerosis. Has often suffered from cough; the least exertion, climbing of stairs, etc., brings on dyspnea. For five weeks bronchial catarrh and severe asthmatic attacks every night. These latter ceased after the fifth inflation, and the patient slept every night uninterruptedly until morning from this time on. Eventually the catarrh disappeared. The patient was dismissed after having had the thirteenth inflation; the bronchi were entirely free. Up to date (one year later) the attacks have not returned.

7. Clara W., fourteen years of age. has suffered since her eighth year from attacks of difficulty of breathing, which at first appeared at intervals of several months, but for the last few years have appeared at intervals of from three to four weeks; they last from two to three days, and end with abundant expectoration. The patient came under treatment fourteen days after such an attack. She received twenty-five inflations. During this treatment patient had still, once in a while, a slight oppression with cough, but no real attack. Six weeks afterwards a mild attack lasting three hours; again, seven inflations of carbonic acid gas were made. During this renewed treatment slight oppressions reappeared from time to time, when treatment was again discontinued. From this time on, patient had no attack during seven months and a half, when again a spell of the former intensity, and of two days' duration, occurred.

8. Anna W., twenty-two years. Has suffered for one year every night from light and short attacks of difficult breathing. After the second inflation they ceased. The patient had received only four inflations when for external reasons she did not present herself any more for treatment. No further observation.

9. Bianca J., twenty-three years. Has suffered for one and a quarter years from difficulty of breathing, which makes itself noticeable during fast walking and climbing of stairs, more marked in the evening. For the last twelve days every evening an asthmatic attack, lasting one or more hours. Slight emphysema; auscultation, except during attack, revealed nothing abnormal. After the second inflation no more attacks; with the seventh inflation treatment was discontinued. There are, however, symptoms of a dry bronchitis, but thus far (eight weeks later) no new attack has appeared.

10. Mrs. A., fifty years. For four years has been subject to asthmatic attacks, which recently have come on more and more frequently. During the last four weeks there have been daily attacks of from three to four hours' duration, occurring mostly during the night, seldom during the day.

Status praesens: Emphysema pulmonum, numerous sibilant râles. In the sputum many spirals and crystals. During the first four days of carbonic acid treatment little change, but after the fifth day the attacks disappeared. After two more inflations the patient declared herself cured, and stayed away from treatment. Cough had decidedly improved, râles were considerably reduced, and the patient remained perfectly free from attacks during the following eight weeks; then they reappeared, but less frequently, and in lighter form.

In the cases enumerated, the effect of the carbonic acid was noticeable after various lengths of time; the chances of cure were better the shorter the time the evil under treatment had existed. But even in the chronic cases, subjective and objective improvement was noticeable almost from the commencement of treatment; improvement in regard to either duration or severity or both. Amelioration of shortness of breath was noted, not only during the attacks, but also during the intervals, and bodily exertions, such as climbing of stairs, could be executed with greater facility. Simultaneously with the relief of dyspnea and asthmatic difficulty there was experienced a most beneficial influence on the bronchial catarrh. Only in one case (No. 3) was no change noticed during treatment, and in another case the improvement took place after treatment had been discontinued.

In all other cases the cough improved, the râles became less, or disappeared completely. Especially noteworthy are three cases of emphysema of the lungs, which Ephraim treated with carbonic acid gas. The history of all three is essentially the same. There was considerable emphysema, chronic bronchial catarrh, cough and shortness of breath, which, naturally enough, increased under bodily exertion. In all three cases relief was secured after a comparatively small number of inflations (seven, nine and eleven, respectively), the dyspnea improved considerably, the catarrhal symptoms disappeared completely in two cases, and in one almost completely. The volume of the lungs, however underwent no alteration.

Resumé: The results of the carbonic acid gas treatment of asthma are shown in improvement of shortness of breathing and of the bronchial asthmatic attacks, which improvement sometimes lasts for a period of time, while at others it is permanent.

It is to be mentioned again that in all these cases only a limited number of inflations were given. Ephraim observed in some cases that nightly attacks would be prevented when inflations were made during the afternoon, but would come on when the inflations were given during the forenoon.

My own experience in treating asthma by means of carbonic acid gas inflation of the rectum confirms fully all what Ephraim has observed. My patients—outdoor patients of the dispensary—made the inflations themselves by means of my simple gas generator already described. Being enabled to apply the gas at any time, they secured, without exception, as far as I know from reports they gave, freedom from attacks during the night, they enjoyed, sooner or later, complete night's rest, and all were relieved from bronchitis. Two cases I had under observation for about two years, and saw the lasting benefit in regard to bronchitis and asthma. Both patients made use of the gas with more or less interruptions—according to their statement—for many months.

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[Written for the MEDICAL BRIEF.]

Diseases Which May Be Mistaken for Rheumatism.

BY WILLIAM MURRELL, M. D., F. R. C. P.,

Physician to the Westminster Hospital; Lecturer on Clinical Medicine and Joint Lecturer on the Principles and Practice of Medicine; Examiner in the University of Aberdeen, London, England.

In this paper it is not intended to discuss any particular disease, but to give an outline of those conditions which are not unfrequently mistaken for rheumatism, ether muscular or arthritic.

The term "rheumatism" has no definite meaning, but is simply a generic term employed to hide our ignorance. It is a conglomeration of diseases, and for the purposes both of diagnosis and treatment it is necessary to resolve it into its component parts. Ordinarily we speak of muscular rheumatism, articular rheumatism, and gonorrheal rheumatism.

Muscular rheumatism is probably in most cases a myalgia, and is a local and non-febrile condition. It affects the voluntary muscles and the fascia and periosteum to which they are attached. It is known by various names according to the particular muscle or group of muscles attacked. Thus we speak of lumbago, torticollis and pleurodynia, all three terms being used somewhat vaguely.

A pain in the lumbar region may be purely muscular in origin, but it may be due to caries of the vertebræ, renal calculus, perinephritic abscess, or congestion of the female generative organs.

Torticollis includes not only the rheumatic affection, but a condition which is congenital, certain tonic and clonic conditions due to irritation of the spinal accessory nerves and some cases of Gilles de la Tourette's disease.

Pleurodynia is made to cover myalgia, intercostal neuralgia, herpes zoster, and dry or localized pleurisy.

Most cases of muscular rheumatism are directly traceable to exposure to cold or wet. A young man in good health travels up to Glasgow from London by the night train, and finding that he has the carriage to himself, piles the cushions on the floor and sleeps soundly, covered only by a light rug. The draught from under the door catches him in the back, and on arriving at his destination he is suffering so severely from lumbago that he has to be assisted from the compartment. In some cases the pain is due to over-exertion. A young lady goes to her first ball, and dances every dance. On reaching home she suffers from pain and cramp in the muscles of the calves, thighs and back, and has to be given a hypodermic injection of morphine before she can be undressed.

A common provisional diagnosis is "lumbago and sciatica." The sciatica may be sciatic neuralgia, sciatic neuritis, popliteal, gluteal, or sciatic aneurysm, melano-sarcoma of the femur, renal cal-

culus or malignant disease of the rectum. In one of my cases it was due to fibrous adhesions strangulating the nerve in the sciatic foramen, the result of a hunting accident—a condition cured by cutting down on the parts, breaking through the adhesions and stretching and "harrowing" the nerve. The popular treatment of neuralgia at the present time is the injection of osmic acid, but it is not safe to employ it for mixed nerves such as the sciatic. Many cases of muscular rheumatism are due to uric acid diathesis, the patient suffering from goutiness, although he may never have had a distinct attack of gout. The growing pains of children are often described as rheumatic, as are the pains of anemia and general debility. The probabilities are that when a patient has been treated for rheumatism for some weeks without benefit, there is some grave organic lesion which has been overlooked.

Trichiniasis is another disease which may be mistaken for muscular rheumatism. The migration of the embryos of the *trichina spiralis* which pass from the intestines into the voluntary muscles excites an inflammation or myositis characterized by tenderness and pain on pressure and movement. The muscles of the larynx and of mastication may be involved, giving rise to difficulty in speaking and swallowing, and sometimes the diaphragm and intercostal muscles are implicated. There may be profuse sweating with some edema of the skin. The temperature is usually elevated, ranging from 102° to 104° F. The diagnosis is made by the microscopical examination of a fragment of muscle removed for that purpose, and by searching for the embryos in the motions.

Another disease attended with acute tenderness of the voluntary muscles of the limbs of the thorax and abdomen, of the back, and even of the neck, is that peculiar affection known as dermo-myositis. It is rare, and probably not more than twenty undoubted cases have been described.

In the United States it has attracted the attention of Dr. George W. Jacoby, of New York, and of Dr. F. Frochheimer, of Cincinnati, and in France a case occurred in the clinique of Prof. Lépine, of Lyons.

The onset of the disease is gradual, and there is some fever, although not of a high degree of intensity. There is edema with often an eruption of erythema, urticaria, or herpes. There is profuse sweating, and enlargement of the spleen has been described in some cases. It may run a chronic course, but the prognosis is by no means good. If the muscles of the larynx and pharynx are involved, the patient usually dies of aspirative pneumonia.

There are many other forms of myositis, most of them of toxic origin. Suppurative myositis is due to a streptococcic invasion. Enteric myositis and the myositis following many acute infectious disorders are familiar to every clinical observer. In these cases the symptoms are not severe, and the tenderness is not pronounced. In gonococcic myositis, the muscles of the neck are often involved. Some varieties of myositis are associated with various forms of hemorrhage, and others with erythema nodosum. Cases of myositis opisficans, in which practically every muscle of the body has undergone calcification, and the patient is reduced to the condition of a "living skeleton," probably represent the final stage of the peculiar symptom picture.

It need hardly be said that in many forms of malaria, pains in the limbs constitute a prominent feature. In Malta fever, which is due to the micococcus melitensis, there are neuralgic symptoms referable to the peripheral nervous system, sometimes accompanied with arthritic effusions. This disease at Gibraltar is known as "rock fever," and it prevails extensively on the shores of the Mediterranean. It is also met with in India and China, and at Porto Rico.

The initial pains of influenza, of beriberi, and of dengue, or "break-bone fever," might readily before the characteristic symptoms here developed, be mistaken for muscular rheumatism.

Articular rheumatism is a term often used as a synonym for rheumatic fever, a disease which in its typical form can not be mistaken. The sudden onset, usually without a rigor, after some definite exposure to cold and wet, the age of the patient, the history of previous similar attacks, the tonsillitis, the sweating with sudamina and milliaria, the involvement

of the middle-sized joints, with a tendency to metastasis, the complication of pericarditis and endocarditis, with possibly hyperpyrexia, and the association, in many cases, with erythema nodosum and peliosis rheumatica, are typical. The readiness with which the temperature falls under the influence of salicin, salicylic acid or salicylate of sodium is almost diagnostic. Whether the disease is always due to a specific organism is not definitely established, but it is often associated with the diplococcus rheumaticus described by Poynton and Pain, and before them by Triboulet and Wassermann. This organism has been isolated from twenty-two cases of rheumatic fever and its presence has been demonstrated in the principal lesions. It is a minute diplococcus, streptococcal in liquid media, and staphylococcal on solid media. It can be cultivated aerobically and anaerobically. Its virulence is low, and is raised with difficulty. No specific test for it has been discovered. When grown in pure culture it produces by intravenous injections in rabbits identical lesions from which in turn the bacillus can be isolated and cultivated. This work is not new, but it has recently been brought forward in a manner to ensure consideration. It is by way of the tonsils that the specific organism finds its entrance into the circulation.

It is usually said that rheumatic fever has to be diagnosed from gout, but the two diseases can hardly be confounded. An acute attack of gout may occur as podagra or chiragra, and it is the former variety which is usually described in text-books. As a matter of fact, the great majority of cases of acute gout seen in London hospital practice affect the wrist and hand, the subjects being brewers' draymen, who drink much beer, and who maintain that it does them no harm, as it is supplied gratuitously. When a man suffers from chiragra, he walks to the hospital, but when the feet are affected, and it is a question of taking a cab, he prefers calling in a doctor from motives of economy.

The treatment of these cases of chiragra presents no difficulty, and it is rarely necessary for the patient to absent himself from his duties for more than forty-eight hours. A mixture, containing twenty grains of iodide of potassium and a drachm of colchicum wine should be taken every four hours. It may produce vomiting and diarrhea, but it cuts short the attack, and the inflammation rapidly subsides. This treatment is adapted only to patients of this particular class, and is not suited for private practice, or for delicate women. As a local application, nothing is better than a mixture of equal parts of extract of belladonna and glycerin applied freely, and covered with a thick layer of cotton wool.

Another disease which we are told may be confounded with acute rheumatism is osteo-arthritis or rheumatic gout, as it was formerly called. There seems to be little doubt that this affection is bacterial in origin, and that it is due to an organism indistinguishable morphologically and culturally from diplococcus rheumaticus. This statement, however, must be received with a certain amount of reserve, for it is not always easy to say positively whether organisms described by different observers are identical.

The disease is usually chronic in its course, attacks the smaller joints, especially those of the hand, and is attended with little elevation of temperature. Some cases run an acute course, and it is then difficult in the early stages to distinguish them from rheumatic fever. The age and sex of the patient, the absence of sweating, and of such complications as endocarditis and pericarditis should put the careful observer on his guard. The treatment of arthritis deformans presents many difficulties, and although large doses of arsenic and of iodide of potassium are commonly recommended, it must be confessed that they usually fail to check the progress of the disease. Hot-air baths, at a temperature of 200° F., are useful, and hot douches relieve the pain.

The choice of a health resort for osteo-arthritic patients presents much difficulty. It does not fall within my province to speak of the numerous health resorts in America which are so well adapted for the treatment of obstinate joint cases.

In England the favorites are Bath and Harrogate, the former being resorted to in winter for its warmth, and the latter in the summer for its fine bracing moorland air. At both there are hot springs,

and complete bathing establishments. One of the best places for the treatment of rheumatoid arthritis is Hamman R'Irha, near Algiers. It is a winter resort, and the season is from November to March. The vegetation is tropical, but the scenery is not unlike that of the Highlands of Scotland. The thermal spring has at the fountain head a temperature of from 110° to 115° F., and there is a complete bathing establishment, with all modern appliances, under the direction of Dr. Barbaud. There is only one hotel, the "Grand," but that is on a palatial scale, and is a very comfortable place of residence. There is a railway from Algiers to Bou Medfa, and from there the remainder of the journey is by road.

Another disease sometimes in the early stages mistaken for rheumatic fever is pyemia, but the abrupt onset, the hectic temperature, the suppurative condition of the joints with the formation of multiple abscesses, make the diagnosis easy. Salicylates are of little avail in this condition, and the only hope is in the prompt administration of anti-streptococcic serum and surgical interference.

The spinal arthropathies, such as the Charcot joints of tabes, and the gliomatous arthropathy of syringomyelia present little or no difficulty, and are readily recognized.

Gonorrheal rheumatism or gonococcic arthritis following in the wake of a specific arthritis, and frequently accompanied by iritis, is well known. Usually the iritis occurs concomitantly with the arthritis. Its onset, however, may precede the joint inflammation, or the iritis may occur without arthritic complications. Usually the eyes and the joints are not affected simultaneously. Both conditions are liable to relapse, and they leave behind a vulnerability of the tissues which may persist for years. The majority of the patients do badly in England, and are glad to seek some warmer climate in winter, such as Hamman R'Irha.

Cases of gonococcic rheumatism originating in ophthalmia neonatorum are often overlooked. Ophthalmic rheumatism may attack infants, either as an acute arthritis accompanied by much pain, swelling and redness, or as a subacute synovitis with effusion. The original ophthalmia may be due to an inoculation from the vaginal discharge of the mother at the time of birth, or it may take place accidentally at a later period. The joint affection makes its appearance at the end of the second or at the beginning of the third week. The disease shows a predilection for the knee-joints, but the wrist, elbow, ankle and hip are often involved. It runs a course of about three weeks, and suppuration rarely occurs. It is possible that in cases in which the effusion becomes purulent there may be a double infection, and streptococci as well as gonococci may be present. In the gonococcic arthritis of adults dilatation of the urethra is useful, whilst in children local treatment directed to the ophthalmia affords the best results. The gonococcus in the ophthalmic secretion has been demonstrated by Darier and by Deutschmann in the fluid from the inflamed joints.*

In a case of multiple arthritis recently under my care, the onset of the joint affection was preceded by an acute attack of purulent double conjunctivitis. There was a dome-shaped swelling of the dorsum of one hand, and some effusion into the opposite knee joint.

There was no history of gonorrhea, either past or present, and squeezing the urethra gave a negative result. The fluid from the joint, and the secretion from the eyes both failed to yield the gonococcus. Salicylates in large doses failed to influence either the temperature or the condition of the joints. The disease ran a chronic course, and not the slightest doubt was entertained that it was gonorrheal in origin, the seat of infection being the conjunctiva. It is well to bear in mind that a gonorrhea is not of necessity urethral in its origin.

Pneumococcic arthritis is a subject which of late has received much attention. The specific organism on which it depends, the diplococcus lanceolatus, is strictly parasitic, but confines its attention entirely to the human subject. It is often present in conditions which are not pathogenic, but it is responsible for a considerable number of morbid conditions. In addition to acute lobar pneumonia and pneumococcic arthritis, it may give rise

* *London Lancet*, January 29th, 1905.

to abscess and cellulitis, pleurisy and empyema, pericarditis and endocarditis, meningitis, peritonitis, and salpingitis, tonsillitis, keratitis, and otitis media—all of pneumococcic origin. The arthritis is usually preceded by pneumonia, but it may anticipate the lung condition, and in some cases it occurs as a primary pneumococcic arthritis. This last condition is rare, but I recently had a case under my care. The patient, a pregnant woman, aged thirty-two, was admitted into the Westminster Hospital on January 1, 1903. She had septic arthritis of both knees, and of one shoulder and wrist. Mr. Walter Spencer performed arthrotomy of both knees, and the bacteriological report showed the presence of an organism culturally and morphologically indistinguishable from diplococcus pneumoniæ.

The point of interest about this case is that there was no history of pneumonia, and although the patient was kept under observation for six weeks, she developed no lung mischief. The joint affection in these cases is continuous, and presents none of the fugitive characters of acute rheumatism. The morbid anatomy of the joint is that of other septic arthrites. The pneumococcus is especially liable to attack a joint, the vitality of which is lowered, either by some previous attack of disease, or by mechanical injury. The treatment of these cases is simple. The joint should be laid open and thoroughly washed out with sterilized water; subsequently rubbing and douches will be found useful in restoring movement. The patients, as a rule, make a good recovery.

Closely allied to the foregoing variety is the arthritis of influenzal origin. These cases are either rare, or they are overlooked and confounded with acute rheumatism. This must be the case when one considers the prevalence of influenza during the last decade. The disease commonly originates in people who have passed the age in which a first attack of rheumatism occurs, and usually there is a history of several attacks of influenza without anything pointing to the incidence of acute rheumatism. The amount of effusion is not great, but there may be stiffness in one or more joints lasting for some weeks.

In one of my cases,* a man aged forty-three, had repeated attacks of influenza, but never acute rheumatism, and there was no history of either syphilis or gonorrhea. The arthritis followed immediately a severe attack of influenza. The joints affected were the shoulders, knees and wrists. There was very little effusion, and not enough to justify aspiration. The disease ran a favorable course, but some stiffness was left in one wrist.

Cases of traumatic arthritis are sometimes associated with the presence of a specific organism. A boy, apparently healthy, receives a blow on the knee, and the fluid obtained from the joint is found to contain a diplococcus identical with the diplococcus of rheumatic fever. The gradual onset of tuberculous disease in a joint, the resistive power of which has been reduced by injury, is of such frequent occurrence that it should always be suspected. Tuberculous arthritis occurs as a complication of advanced phthisis, but I can not say that I have met with many such cases. There are cases of polyarthritis occurring in women suffering from leucorrhea said not to be gonococcic in origin.

In scarlet fever, joint lesions are comparatively common, and these cases were formerly known as "scarlatinal rheumatism." Other forms of arthritis are due to syphilis, enteric fever, erysipelas and glanders.

Numerous cases of hypertrophic pulmonary osteo-arthropathy have recently been recorded, for the most part associated with chronic affections of the lungs or bronchi. I have met with a case in which the joint affection, a septic arthritis, was due to a suppurative condition of the roots of a number of decayed teeth. Hemarthosis in patients suffering from hemophilia must be borne in mind.

Not infrequently pain in or about a joint is reflex in origin; for example, pain in the knee may be indicative of tuberculous disease of the head of the femur, or it may be due to renal or vesical calculus. It is well to remember the existence of hysterical or mimetic joint affections.

Probably one of the greatest misfortunes that can happen to a man in prac-

* *The Lancet*, (London) July 18th, 1903.

tice is to confound osteo-myelitis with rheumatism, but the mistake has been made over and over again. Acute suppurative osteo-myelitis occurs chiefly in young subjects, and is staphylococcic in origin. It may arise without any obvious external wound or lesion. It attacks the bone in the immediate vicinity of the epiphysis, the common seats being the upper end of the tibia and the lower extremity of the femur. In addition to high fever and general constitutional disturbance there is pain on percussion over the affected parts. The treatment is to cut down on the bone, gouge out the diseased part, and apply pure carbolic acid. Injections of antistaphylococcic serum are useful, and if one particular make or brand fails, it is well to try another, but amputation is often the only means of saving the patient's life.

The diagnosis of acute rheumatism is easy, but there are many sources of fallacy, and every case should be regarded with critical eye. One mistake in diagnosis will create an unfavorable impression which will take many years of successful practice to wipe out.

[Written for the MEDICAL BRIEF.]

Thuja as a Remedy for Warts.

BY CHARLES D. F. PHILLIPS, M. D., LL. D. (ABERD.); LL. D. (EDIN.); F. R. S. ED.; F. R. C. S. ED.; M. R. C. P. (LOND.)

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For many years I have employed thuja in the treatment of warts. By the term thuja I wish to indicate the fresh tops of thuja occidentalis, the white cedar growing in the Northern United States of America. It contains pinicripin, a bitter, active principle, probably not an alkaloid, and thujin, a yellow coloring agent. Its most important constituent is a volatile oil allied in pharmacological action to savin, and known as thujetin. Thuja is useful in all papillomatous conditions, and a wart is a papilloma of the skin, whether it be single or multiple, simple or branched, acuminated or flattened. My own experience, lasting now over a considerable number of years, induces me to recommend it in the highest terms for the cure of warts with a narrow base and a pendulous body. They may occur upon any part, and have often a history which is hereditary. Many of them are removed by cleanliness, and the external application of nitrate of silver, glacial acetic acid, or the acid solution of nitrate of mercury, or by cutting off the growth with a pair of scissors, and dressing the part with an astringent lotion, but these remedies are far inferior to a strong tincture of thuja occidentalis, applied three times a day for a week or a fortnight. Warty growths about the penis or the vagina of women are undoubtedly contagious, and are often syphilitic or gonorrheal in origin. It is in this variety that the efficacy of mercurial lotions and ointments is the most marked. For condylomata, calomel with astringents is a good dusting powder, but the acid nitrate lightly applied is still more effective; one application will sometimes destroy the growths where nitric acid alone and other caustics have failed. For generalized syphilitic eruptions, especially those of papular character, baths of corrosive sublimate have been recommended by Baume, Trousseau and others, but their proportion of half an ounce to each bath I think too large; headache, drowsiness, and sometimes colic and diarrhea are produced, and the skin is irritated by them.

The peculiar form of wart which is apt to appear on the hands of pathologists and others engaged in making *post-mortem* examinations is of quite a different character, and is due to cadaveric infection. I have a suspicion that they are often tuberculous in origin; they are best treated by the stronger tincture of thuja, to which reference has already been made.

In addition to warts about the genitals, only some of which are gonorrheal in origin, crops of filiform warts sometimes appear on the scalp, about the skin of the neck, in the axilla, and even on the eyelids. In these cases a wash or lotion of thuja is most useful, and often the warts fall off in two or three days after this application, leaving the base perfectly healed, although the strong tincture

should be applied locally to such as are intractable.

Condylomata about the arms or pudenda of either sex—whether of a syphilitic character or otherwise—are rapidly cured by the application of the same tincture.

In addition to the local application, five drops of the tincture should be taken in a wineglass of water internally every night and morning.

Although the great and most useful sphere of action of thuja is in the treatment of warts and papillomatous growths, it is also valuable in rheumatic and arthritic pains, and in ulcerated surfaces, especially about the corona glandulis.

[Written for the MEDICAL BRIEF.]

Medical Life in London.

BY ALBERT SMITH, M. D.,

Paris.

Having recently, in company with two American medical friends, paid a hurried visit to some of the chief hospitals in London, I think that a brief account of our experience may not prove uninteresting to those readers of the MEDICAL BRIEF who contemplate a short stay in the metropolis of England. I say advisedly a short stay, and by that I mean from a week to ten days, for my observations were made in that comparatively short time, and may not be applicable to those contemplating a longer period of study.

The great difficulty about medical life in London is that there are many hospitals scattered over a wide area, so that it is impossible to visit them all, and it is necessary to make a selection. There are nine big hospitals, to which medical schools are attached, exclusive of one for women, and these naturally first claim our attention. There are, in addition, a great number of "special" hospitals, some of which are well worth visiting, while others are not.

With regard to the mode of admission to see the practice of any hospital, this presents no difficulty. We simply sent in our cards by the janitor or porter in attendance, and were, without exception, most courteously received. Whether the fact of one of our party bearing an honored medical name had anything to do with the cordiality of our reception, I am not prepared to say, but I am inclined to think that equal hospitality would be shown to any visitor.

With regard to the best month for visiting medical London there is not much to be said. The hospitals are always there, and are always open, some of them boasting that their doors have never been closed, night or day, for many centuries. June and July are ideal months, and probably the best of the year; in August and September, the senior men often take their holidays, and the wards are left in the hands of the juniors, who, although they may be equally good teachers, have not the same reputation.

The order in which the hospitals should be visited depends to some extent on the place of abode of the visitor. Many Americans, especially those who contemplate only a short stay, find themselves located at the Hôtel Métropole, or the Victoria, or the Grand, all of them in Northumberland Avenue, and in the center of the West End. That was the case with our party, and the locality to a large extent influenced our movements.

On inquiry we found that the nearest hospital was the Westminster, and we accordingly wended our way there. It was but five minutes' walk, and thanks to the directions of a kindly policeman, who seemed to take a personal interest in our movements, we found it without difficulty. It is an imposing building immediately opposite Westminster Abbey, and was, we were told, the first hospital in London supported by voluntary subscriptions. It is of considerable antiquity, but exactly how old I do not recall. It is a general hospital, with special departments. Our visit was paid on Thursday, about two o'clock in the afternoon, and we were received in the wards by Dr. Murrell, who showed us some excellent cases, demonstrating each of them in a few, well-chosen words. He was accompanied by his clinical clerks, and was followed by a considerable number of students, to whom he was engaged in imparting instruction of a very practical character. We learnt that he visited three times a week, one visit being paid on Saturday

morning at 9.30. I mention this fact because most visits are in the afternoon, and it is not always easy to profitably employ the hours before mid-day.

On the following morning we visited the clinique of Dr. Allchin at the same hospital. He has a considerable reputation as a teacher, and his demonstrations are largely attended by advanced students and medical men preparing for the higher examinations. On the following Tuesday we witnessed, in the theater of the hospital, a number of operations by Mr. Walter Spencer, most of them being of considerable magnitude. We also saw two operations, on a subsequent date, by Mr. Charles Stonham, who is said to be one of the best operators in London, and whose ambidexterity is remarkable. We also paid a visit to the section of the out-patient department, presided over by Dr. T. Calcott Fox, and had the opportunity of examining a number of rare and very interesting skin diseases. Altogether our visit to the Westminster Hospital was a very pleasant one, and resulted in much profitable instruction.

At no great distance from the Westminster Hospital are the Hospitals of Charing Cross and St. George's, the latter overlooking Hyde Park. At Charing Cross the chief physician, until quite recently, was Dr. Mitchell Bruce, but he has now resigned. The senior physician at St. George's, Sir Isambard Owen, has also left, but we had a few minutes with Dr. Ewart, and also with Dr. Rolleston, who has recently published a book on "Diseases of the Liver." On the other side of the Thames, over Westminster Bridge, is St. Thomas' Hospital, but that, unfortunately, we had not time to visit.

Many American physicians make their headquarters at the Hotel Russell, in Russell Square, or at some of the numerous hotels in the neighborhood. These are somewhat remote from the West End, but they form a convenient nucleus for visiting University College Hospital. This is a new building of considerable magnitude, and is only just completed. The old hospital, which formerly stood on the site, has been demolished, but in its time it was a medical school of much importance. Connected with it in times gone by were Sir William Jenner, Sir Russell Reynolds, Sir Henry Thompson, Mr. Erichson, Mr. Marshall (both Presidents of the Royal College of Surgeons), and Sir John Williams. These are now all dead with the exception of the latter, who has retired from practice. We had, however, an opportunity of making the acquaintance of Sir Victor Horsley, who is an authority on brain surgery. Not far from University College Hospital is the Middlesex Hospital, which has a special cancer ward. These two institutions are but a quarter of a mile apart, and each has its own expensive establishment of lay officials. To the uninitiated observer it would appear that a great economy would be made by amalgamating them, but in London there is no central authority by which such matters are controlled.

Amongst the largest hospitals in London are Guy's and St. Bartholomew's, both far from the West End, although they are readily reached by the "Tube Railway." Bartholomew's is an old foundation, and was established by Rahere in 1120. Amongst its early benefactors were Thomas Beckett, Archbishop of Canterbury, Henry FitzAilwin, the first Mayor of London, and William Longespés, one of the witnesses of Magna Charta. It has an air of antiquity and respectability, but the wards are poor, and it is not surprising that there is a movement on foot for restoring or removing the building. There have been many changes in the staff of the hospital of late, and we were told that Sir Lauder Brunton had recently resigned. At Guy's Hospital, which was founded by Thomas Guy, in 1721, we were received by Dr. Frederick Taylor, and saw some interesting cases. Both at St. Bartholomew's and Guy's there are many students, and there are fewer opportunities for the casual visitor than at some of the smaller hospitals, though personally we experienced no difficulty.

We did not venture to visit the Royal Free Hospital, which is the School of Medicine for Women, but we were assured that ladies possessing medical qualifications might rely on a cordial reception by the members of the staff.

The London Hospital is at "Mile End," in the East of London, in a district far removed from most of the other hospitals. It contains eight hundred and twenty

beds, and nearly two hundred thousand patients are seen every year. It was at this hospital that Mr. Jonathan Hutchinson, Sir Frederick Treves, and the late Sir Andrew Clark obtained their reputations, and laid the foundation of their extensive practice. One of the physicians is Dr. Robert Hutchison, who is the author of a well-known book on "Food." Much attention is devoted to the light treatment, and Dr. Sequira, the Superintendent of the Department, is in attendance daily.

King's College Hospital is in Portugal Street, Lincoln's Inn Fields, at no great distance from the Strand, but it will soon be removed to the populous district known as Clerkenwell. Incidentally, it may be mentioned that there is a movement on foot for the decentralization of many of the great hospitals of London. During the last twenty years slums have little by little been swept away, to make room for new streets, and blocks of buildings let out in offices and chambers. The poor and poverty-stricken have been forced to seek accommodation elsewhere, and now the hospitals are beginning to feel the necessity for adapting themselves to these altered circumstances. The senior physician to King's College Hospital is Dr. David Ferrier, and the senior surgeon is Mr. Watson Cheyne. Lord Lister is the consulting surgeon, but the post is honorary, and does not involve active hospital work, or the care of patients.

First and foremost amongst the "special" hospitals must be mentioned the Hospital for Consumption at Brompton, which is easily reached from the neighborhood of Charing Cross by omnibus. It stands in its own grounds of about three acres, and in addition to three hundred and twenty-one beds, there is a very large out-patient department. We spent a morning with the out-patients, and an afternoon in the wards. Every opportunity was afforded us of examining the patients, many of whom were suffering from heart disease, and other diseases of the chest, the hospital by no means confining its sphere of usefulness to the treatment of consumption. Almost immediately opposite, and also in the Brompton Road, is the Cancer Hospital, a few doors from which is a hospital devoted to women's diseases.

Another special hospital which should not be missed is Queen's Square, known technically as the National Hospital for the Paralyzed and Epileptic. It has a very fine staff, and the visitor interested in nervous diseases will find much to interest him.

In addition to these there are many other hospitals of which I regret that I am unable to speak from personal experience. There are hospitals for the eye, for the skin, for the throat, for orthopedics, and, in fact, almost every class of diseases. All the general hospitals have their own special departments, each presided over by a physician or surgeon of acknowledged eminence. To visit them in detail would mean a stay of some weeks, or even months, and in ten days it is useless attempting to see everything. The only possible plan, if one's time is not to be wasted in journeying from place to place, is to select a central locality as a place of residence, and to visit those hopsitals which are easily accessible, or in which one is specially interested. A visitor is treated everywhere as a guest, and is not required to take out a ticket or pay anything. If, however, he intends to stay for, say, three months, he would do well to take out the joint ticket issued by the London Post-Graduate Association, which costs seven guineas, or about thirty dollars for three months. It admits to the following general hospitals: Westminster, St. George's, Charing Cross, University College, King's College, Middlesex, St. Thomas', St. Mary's, Guy's, and the London, and also to the Brompton Hospital, the Hospital for Sick Children (Great Ormond Street), the London School of Tropical Medicine, the National Hospital for the Paralyzed and Epileptic, and the Royal London ("Moorfields") Ophthalmic Hospital. That is to say, that the post-graduate has the run of fifteen large hospitals, comprising about four thousand five hundred beds, and out-patients too numerous to mention.

There is a polyclinic in London where short lectures and demonstrations are given daily, and there are, in addition, at least two post-graduate colleges, but, as a rule, it will not be found necessary to go beyond the ordinary hospitals, and the

joint ticket. The Lister Institute of Preventive Medicine and the School of Tropical Medicine will, however, well repay a visit.

There is no city in the world—not even Paris—where there is a greater wealth of clinical material than in London, and there is no medical center in which it is more readily accessible. In October last, about a hundred and fifty French physicians and surgeons were entertained in London by their English colleagues, and although their visit was a very short one, they were delighted with all they saw. The patients are everywhere well cared for, the wards are brightly decorated, and gay with flowers, and the nurses are by no means wanting in good looks. Everything is done to make the patients happy. As my friend, and former teacher, Dr. Lucas-Championnière, of the Hotel-Dieu, said to me after his recent visit to London: "En certains points peut-être y a-t-il une tendence au luxe un peu exagerée," but if so it is a fault on the right side.

[Written for the MEDICAL BRIEF.]

The Pain Following the Clamp and Cautery Operation.

BY CHARLES B. KELSEY, M. D.,

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In a recent article we find this statement: "It is well-known that for several days after the usual clamp-and-cautery operation, pain and edema contribute greatly to the distress of the patient." This is unquestionably true, and yet it is because of the comparative absence of pain that we have always advocated this operation in preference to others. While I would not seem to imply that my own way of operating is any better than that of other surgeons, it is certainly a fact that my patients generally suffer only slight inconvenience, seldom or never require any anodyne, and usually enjoy their meals within a few hours after the anesthetic. And yet the patients of other men tell me the suffering was unendurable, so intense, in fact, as to make them advise their friends on no account to submit to an operation.

The suffering must, indeed, be a serious element in the case when the same writer advises the following means of preventing it: "Immediately after the clamping and burning have been completed, six or seven radiating incisions through the skin, well into the subcutaneous tissue, are made with scissors."

Here, then, we have an operation which is almost painless in the hands of some, attended by such suffering in the hands of others that a second operation almost as serious as the first is advised to overcome it, and the only possible explanation is to be found in the technique.

I can hardly add anything to the description of the operation as done by myself that will make it any plainer. The technique is hard to convey in words, and should be seen. But the chief difference between operators lies in the way the clamp is used, and I may convey a new idea on this point when I say that I have often done the clamp operation without the clamp at all, but with an ordinary pair of broad-ligament forceps, just strong enough to hold the stump while it is being sealed with the cautery. Again, I have many times put the clamp gently on to a large prolapsing pile, cut it off, and cauterized the stump in my office without even a local anesthetic, and without sufficient after-pain to confine the patient to the house. And I have seen exactly the opposite of this—a strong man get a portion of the rectum into the clamp, and lay out his strength upon it, until no amount of local anesthesia would control the deadly suffering at the time, or the bruised pain for days afterward. It is, in fact, the clamp and not the cautery or the cutting which causes the pain when the operation is done without general anesthesia, and the patient can describe his own sensations; and it is the clamp which causes the bruising and the edema; and no such use of this powerful instrument is necessary. It would be very easy to invent a much less powerful instrument which would answer the purpose equally well, and do less harm, for no more pressure or power is necessary to control bleeding from a pile than from a small artery anywhere else which has been cut, and is seized with artery forceps, and held till tied. This is the only

function of the clamp, except that because we use the cautery a forceps with broad blades is a convenience and protection to adjacent parts.

Another point in technique which can not be too strongly insisted upon is that the clamp and cautery operation is essentially a cutting and dissecting procedure as is the ligature, and not a crushing, squeezing and burning method.

Before the clamp comes into play at all the pile should be freely dissected from the submucous layer with scissors, beginning at the lower part of the tumor and working freely upward until only a pedicle remains in which are the chief vessels. On this pedicle only is the clamp to be used, and to it is the cautery applied. A ligature answers as well, and if my own operations were followed by any such suffering as is described, I should abandon the clamp forever in favor of the ligature, because it is only to avoid pain that I use the cautery in preference to the ligature at this stage. Of course it is plain that performed in this way only the upper end of the incision is cauterized and clamped, and that is all that is necessary. It may be that this is the usual technique with my confreres. I am not in the habit of seeing them operate and I do not know. If it is, I cannot understand the suffering, and I have heard curious stories of seizing large masses of tissue at the margin of the anus with the clamp, cutting them off and cauterizing the stump, without any previous dissection; and I can imagine no method more likely to cause intense after suffering. Another little point is the time and trouble spent in screwing the blades of the clamp tightly home, as though if this were not done there might be fatal hemorrhage. My own clamp became minus the screw attachment several years ago, and it has never been replaced.

To put the thing in a word, my own clamp is used only as a broad headed artery forceps, and is not meant to crush or to squeeze beyond the amount necessary to keep an artery from spouting until it can be sealed by the cautery.

There is but one other point which occurs to me as a source of suffering—the packing of the rectum with gauze, which I am told is often done. In my own practice, no dressing is used except a little cotton over the anus, tied in place by a T bandage. The cutaneous edges of the dissection I make will bleed unless pressure is applied, hence the pad, which will always check any hemorrhage at the margin of the anus. As for bleeding within the rectal pouch, I never see it; because the work with the cautery is thoroughly and carefully done; therefore, I never provide against it; and therefore, there is no wad of gauze inside the rectum to cause suffering by its presence and greater suffering by its removal.

I can only express the hope that these simple statements may do good, as I believe I have had much to do with popularizing this particular method in America. But I only took it up in preference to the ligature because with me it caused less after suffering; and if this is not the case with others, I should certainly advise for them a return to the other method. The clamp operation is no safer, no more radical than the ligature, and when followed by such pain as is described, it is inferior to that procedure. With me it is still the ideal treatment, having but one objection, the necessity for general anesthesia.

After a good deal of experience, when a patient wishes to be cured of his piles at once and forever, with the minimum of pain, and the greatest certainty as to time, suffering, and permanent result, if he submits to my advice, and does not balk at "operation," he goes through the clamp and cautery operation. And this is not because I am not quite conversant with all the other makeshifts, in the way of local anesthesia, and office treatment, many of which are most satisfactory up to just a certain point.

Given a prolapsing pile, nothing is easier than to inject it with water, or cocaine, or eucaine, and tie it off or burn it off, and the result as to that particular pile is perfectly satisfactory.

Given a case of several piles, which do not protrude, with varicose condition of the cutaneous margin of the anus, which will swell up on straining to the size of your thumb, piles which are not isolated, nor, so to speak, pedunculated, and which can not be properly reached and handled without a preliminary dilatation of the

sphincter, and twenty-five years of practice has failed, as yet, to show me any method of treatment as painless, and as satisfactory as the clamp and cautery.

18 East Twenty-Ninth St.

[Written for the MEDICAL BRIEF.]

Prostatic Hypertrophy: Its Relief by Perineal Operation.

BY BRANSFORD LEWIS, M. D.,

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The general practitioner in a given case of urinary disturbance wants to know whether it is a case of prostatic hypertrophy with obstruction, or of stricture of the urethra with obstruction, or simply inflammation of the bladder without obstruction. These are the three conditions which he wishes to differentiate in cases of elderly patients suffering from urinary troubles.

Fortunately it is not difficult to arrive at a diagnosis in these respects. Where prostatic hypertrophy is suspected the finger is introduced into the rectum, and it is easy to determine whether the prostate is larger than normal or of a normal size and outline. If one finds that it is considerably hypertrophied that does not always denote obstruction. A patient may have a hypertrophied prostate with absolutely no obstruction from it. To determine, then, whether there is obstruction, we have the patient void his urine (all of it that he can) into two glasses. Immediately afterwards he is placed on a table and a soft rubber catheter of good size, say 25 F., is introduced into the bladder and the extent of obstruction is shown in the amount of urine that has been retained. If three ounces of residual urine are drained off by these means, that indicates only a moderate amount of obstruction. If fifteen ounces are retained after a voluntary effort at urination, that indicates an obstruction considerably greater in degree. If a soft rubber catheter is passed easily through the urethra without meeting any obstruction, that in itself eliminates stricture of a degree sufficient to account for that much residual urine.

The kind and shape of outgrowth from the prostate that is producing this obstruction can only be determined definitely by means of a cystoscope. I have had one constructed for this purpose which gives a retrospective or backward view. It is placed in the bladder and enables one to look toward the prostate, and plainly shows the outlines of the prostatic overgrowths, their location, and whether the projection causing the obstruction is on the right or left side, or is posterior or anterior to the urethral opening; its size and other characteristics are thus determined by the cystoscope before we enter the bladder by incision.

As to the accompanying conditions that are often not only so troublesome, but so dangerous to the individual, we must diagnose involvement of the bladder, inflammation of the kidneys, in relation to infection and inflammation; in other words, surgical Bright's disease, etc., etc. This is determined by a microscopic and chemical examination of the urine. If there is a large amount of albumen present, low specific gravity, and a large quantity of pus, of renal epithelium and casts, it is certain that the kidneys are involved to a serious degree. If there are no albumen present and no casts, a normal specific gravity, and a plentiful quantity of urine, then, even though there may be considerable pus in the urine, serious involvement of the kidneys is not necessarily indicated, as the pus present under such circumstances probably comes from the bladder, due to the inflammation and infection of that organ.

These points necessarily have a bearing on the determination as to whether an operation is advisable or necessary. If there is serious involvement of the kidneys, that causes us to defer an operation, or possibly resort to palliative measures. It is a fact that latterly palliative measures have been used, by which patients are improved sufficiently to bring them within the scope of an operation. I refer to regular catheterization or washings of the bladder, or leaving a soft rubber catheter

within the bladder for several days at a time, temporarily restoring the patient to a condition to meet the depressing effects of a more radical curative operation. We cannot expect to reclaim an old patient permanently from his prostatic condition by any such palliative measures. Possibly we can prevent his growing worse and give him a certain degree of comfort, but palliative measures cannot be relied upon as offering any promise of cure. If a patient wishes to be cured he must be operated upon by one of the various methods now in use. Fortunately, modern surgery has so simplified technique and lessened the depressing effects of operation that vastly greater satisfaction is derived from operative measures with much less serious effects than was formerly the case; and benefits are now offered to men above the eighties in age, and to old men in a serious state of depression from prolonged disease effects, and they are carried through to a successful termination and restored to a condition of health that is highly gratifying, not only to them, but to the surgeon. A number of old men have expressed themselves after they have recovered from operative measures as being able to urinate as freely, satisfactorily and comfortably as ever before in their lives.

Operative measures resolve themselves into three classes. First choice, perineal prostatectomy; second choice, suprapubic prostatectomy, and third choice, electro-incision, the latter including the Bottini operation as practiced by Freudenberg, of Berlin; and perineal electro-cauterizations, as practised by Wishard, of Indianapolis. Castration is not worthy of further investigation or discussion.

Perineal prostatectomy offers by far the best chance of these three for a permanent cure, and is probably the safest operation.

After general anesthesia with the patient in the extreme lithotomy position, a sound is placed in the urethra as a guide, and an inverted V incision is made downward through the skin, and by blunt dissection we reach the urethra, open it by a longitudinal incision of three-quarters of an inch, withdraw the sound from the urethra and pass the index finger through the urethra into the neck of the bladder. We usually find a marked constriction of the neck of the bladder, in addition to the variously-shaped outgrowths from the prostate; this constriction is removed by the use of a uterine dilator, rendering investigation with the index finger easier and more complete. A Young's tractor is inserted through the opening in the urethra into the bladder, is opened and then drawn on to bring the prostate further down into the perineal wound. This permits of satisfactory exposure of the prostate. The capsule is incised longitudinally on each side of the urethra, the incision being deep enough to get through the capsule, then with periosteal elevator the capsule is freed from the periosteal tissue, first on one side then on the other. In some cases this enucleation process is quite easy, in others extremely difficult, and may have to be replaced by other measures, such as biting or gouging out with forceps. However, the endeavor is made to peel out or enucleate the two lateral lobes, at first by the periosteal elevator, and later by means of the index finger, counter pressure being made all this time by the tractor, which is retained in the bladder. When the lateral lobe, first attacked, is separated on all sides except that next to the urethra, it is severed at this point by means of a scissors, unless it peels out easily. Then the opposite lateral lobe is attacked and removed in a similar manner. Usually there is a third point of obstruction to be removed, the so-called middle lobe, that is depressed into the opened prostatic capsule by means of the left index finger inserted into the bladder, and is peeled out in the same manner. Continuous drainage for the bladder is obtained in the following manner: Two soft rubber catheters, a large one and a small one, are tied together by means of a silk ligature, and inserted into the urethral opening into the bladder; plain antiseptic gauze is packed into the cavities left by the removal of the three portions of the prostate. This packing must be sufficiently tight to prevent any oozing of blood but not tight enough to cause pressure on the rectal wall. This is especially important because a continuous pressure of such gauze packed to an undue degree is likely to cause a slough of the bowel wall

and a recto-urethral fistula, which is very difficult to manage. A pad of gauze and cotton and a T bandage completes the dressing, and the patient is quickly removed to his bed. Continuous drainage is provided by attaching rubber tubing to the smaller catheter, which conducts warm water from a water bag into the bladder, the outflow is through the larger catheter, and this is connected by rubber tubing, emptying into a large bottle. The fluid is allowed to flow in a slow stream for the next twenty-four hours. This is a delightful provision, as it not only prevents the formation of clots in the bladder, which may become a very troublesome affair, but provides against the lodgment or retention of infective materials, either pus or blood, so that under this arrangement there is no elevation of temperature, much less any danger of chill or fever. The patient revives from his operation, and in two or three days will feel better than he has, perhaps, felt for months. He is usually able to sit up in bed after the third day, and may be removed to a rolling chair after a week. The drainage tubes are removed in from four to seven days. The urine then draining for a time through the perineal opening wets the dressings and a transitory stage of discomfort is reached. With the gradual closure of the perineal wound this discomfort is ended, so that in a week or ten days the passage of urine is intermittent, and more or less under the control of the patient.

The next point of importance is the closure of the wound itself, which permits the urine to go out by the normal route, through the urethra. At the same time measures must be taken toward securing regularity and smoothness of the urethral channel in the prostatic neighborhood, especially if a considerable portion of the prostatic urethra has been removed with the obstructing outgrowths. This is secured by the regular use of sounds of good size, every three or four days. If success has been attained by the operation the patient is not only able to hold his urine until convenience permits of evacuation, but he is able to void it, something he may not have been able to do for years. As to whether he does empty his bladder or not can be easily determined by using a soft rubber catheter after voluntary micturition. A half ounce of residual urine is not objectionable; indeed, such residue may be often found in persons with no urinary trouble. The test of success in operation, therefore, is as to whether the patient empties his bladder with satisfaction, urinates less frequently than formerly—say five to eight times in twenty-four hours—and is free from his various symptoms. It may be necessary for him to wash the bladder for some time after such operation. That is easily accomplished and is not a troublesome affair under the new conditions prevailing. It consists in simply applying the nozzle of a fountain syringe to the meatus, allowing warm solutions to pass into the bladder, without the necessity of using a catheter or other surgical appliance. This treatment the patient can carry out in his own home.

Century Building.

[Written for the MEDICAL BRIEF.]

Lung Development—The Lungs Both Give and Take.

BY THOS. BASSETT KEYES, M. D.,

Of Butternut, Wis., during the summer months; of El Paso, Texas, during the winter months; Professor of Tuberculosis, Jenner Medical College; Chairman of the First Organization Committee American Congress of Tuberculosis, and one of the Vice-Presidents of the International Congress of Tuberculosis, St. Louis, 1904; Editor of "The Tubercle" (a journal on Tuberculosis) from 1897 to 1902; Medical Director Camp Keyes, an Out-of-Door Camp for the Tubercular, in the Piney Woods of Northern Wisconsin (established 1900), etc. Chicago, Ill.

[Warfare—Paper No. 4.]

It is agreed that when the lungs once become actively diseased any exercise which is at all violent, or if carried too far, will result in injury, as it will often produce fever and extension of the disease; on the other hand, if the disease is not active he may do much to develop the capacity of the remaining healthy tissue, and the elasticity of the chest walls and articulations of the ribs.

Healthy lungs are often exercised too much and their vitality injured. At the meeting of the State Medical Society of

New York (Trans. of the Med. Soc. N. Y., 1886, p. 115) Dr. Ely, presented a paper on pulmonary gymnastics, saying that physicians in general practice frequently see patients with deficient pulmonary capacity, due either to lack of adequate chest development or to conditions of a chronic nature which compress or condense the air cells, and that if any real benefit was to occur from the employment of pulmonary gymnastics it would only be obtained after months of faithful practice; further, he says: "To recapitulate: Among the remedies in many conditions of defective chest exhaustion, inherited or produced by disease of a latent or inactive character, pulmonary gymnastics should be accorded a prominent place. They are contraindicated in all acute diseases of the lungs." In the discussion which followed in regard to the abovementioned paper, Dr. A. L. Loomis says: "One word in regard to pulmonary gymnastics, a subject raised by Dr. Ely. When much younger I gave a great deal of attention to this matter, believing that it would prevent the development of latent phthisis in my own case. I became convinced during college that gymnastics, when practiced while the health is below par, enfeebled rather than strengthened the respiration, and increased the liability to catarrhs, etc., so that unless one is in first-rate physical condition I think the proposed plan of pulmonary gymnastics, if carried out, will be more liable to do harm than good." "As regards pulmonary gymnastics in pleuritic adhesions and pulmonary phthisis, that is another matter." "As to college training, rowing, gymnastics requiring prolonged muscular effort which young men are being put through at the present time, it seems to me that it is laying the foundation for a great many cases of cardiac disease; and from my own personal observation I find that phthisis is developed in a large proportion of the prize men at college, the men who head the nine. These are men who overstrain during the development period, and the men who are afterwards subjects of pulmonary phthisis. Within the past two or three years I have been keeping records, and I have been astonished at the large number of that class of men who develop phthisis or cardiac disease; and I believe it is nothing more or less than an overtaxing of the respiratory and cardiac organs during the development period."

Lungs Give and Take.—Let us pick up the threads from where Dr. Loomis left them and see what is to be deduced and how the lungs are to be properly developed. In the discussion we are told that too much lung exercise is not beneficial. I maintain that the reason for this is that the lungs both give and take, and that the exercise must be proportioned to the food eaten which is to be oxidized. The lungs give oxygen to the blood, but they take away watery products, carbon and other matters. The oxygen unites with the blood and produces chemical changes in the body tissues, principally of which are the heat-producing foods, fat in particular, then if there is not a good supply of the heat and force-producing foods in the diet, and a good store of fat in the tissues, other more vital tissues will be drawn upon, and be oxidized or changed and given out through the lungs as carbon for the oxygen which has produced the change. If this goes on and the body be not well nourished and able to withstand this oxidation of tissue, then the system may become bankrupt, for the more vital tissues must yield to the chemical action until finally even the blood must yield itself for oxidization and, as a consequence, a diminution of its constituents.

The stoker or fireman has not only raked away the cinders, but he has also burned up the supply of heat-forming tissue (reserve fat), and if the exercise has been carried too far he exhausts the engine itself, burning up its vital tissues. Fortunately, when this happens the machine becomes too weak and exhausted to carry on further exercise and recuperates readily if not overtaxed, but proper heat-producing foods must be supplied in just such abundance as not to allow the exercised lungs and increased oxygen to consume the body tissues, but to consume the fat eaten in our diet in sufficient quantities to supply the tissues, and their force and heat. As evidence of this we know the effects of cold, and the rapid breathing of high altitudes, which, when not counterbalanced by proper food, leads to perni-

cious anemia. If we take more exercise than consumes the fat of our diet we weaken our lungs; therefore, development of the lungs by exercise must be proportionate to the amount of tissue-forming and oxidizable foods which we eat.

Fat once taken into the system departs almost entirely by way of the lungs, in the form of carbon and hydrogen. That fat foods have the greatest influence in the development of the broad, flat, healthy chest I am thoroughly convinced from the observation and study of many individuals. Lungs develop according to their work, and since they both give and take it is reasonable to believe that both functions are as important, the one to the other. The narrow chest is common to those people, more particularly, who do not eat a plentiful supply of fat, and who are descendants from parents who do not eat sufficient of these foods.

Exercise Must Be in Just Proportion to Nutrition.—So far we have tried to make it plain that development of the chest by exercise must go "hand in hand" with a proper diet, particularly of those foods which are oxidized and eliminated by the lungs, and when the relation is maintained exercise in just proportions is beneficial.

If young people were taught the value of proper food and taught the correct way of breathing the lungs would develop accordingly, and the resistance from disease would be increased, and it is very important that the young be taught the correct way of breathing, for then when carried on correctly there will be an increase of appetite and of the vital functions, providing this appetite is supplied with proper food; there will be a greater lung capacity, and increased movement in the bony articulations of the chest, and by correct method of breathing and a just proportion of proper food we regulate the general blood and lymph circulation, for every protoplasmic unit of the body must have its essential quantity of oxygen, but that protoplasmic unit must be there to unite with the oxygen in such an abundance that the body will not be defeated, then in return for the oxygen it yields its products of activity. Proper breathing and proportionate food is, therefore, of the utmost importance.

Methods of Breathing.—There are three types of breathing which have been described as normal; first, the diaphragmatic; second, lower costal; third, total costal. The first two may be entirely independent and distinct forms of breathing, and the third form may be distinct and independent of abdominal or diaphragmatic breathing. Each one of these forms of breathing has had its advocate, and each has been developed distinctly, according to various views and methods, as aids in singing and oratory, but for the healthy well-developed body there is but one way of breathing, and that is by combining the three. With each inspiration the abdomen should raise, the lower and upper chest wall should expand and raise. By this method of breathing it will be found that the well-developed individual, without practice, will be enabled to inhale (by actual measurement) about one hundred cubic inches of air more than by a combined lower costal and diaphragmatic breath, and about two hundred more cubic inches of air than by a pure diaphragmatic breath.

Breathing Exercise.—Breathing exercises, as previously stated, should never be carried to extremes. A very good method of exercise to teach the young to breathe correctly is to have them lie straight on their back, placing a book or other article over the umbilical region, and with each inspiration the book is to raise, together with the ribs of the lower and upper chest, which are to raise and expand, thus teaching a combination of the forms of breathing.

Indications for Exercises.—Various exercises are particularly indicated where there is permanent ossification of the upper costal cartilages and lack of mobility in the articulations of the clavicles and articulations of the ribs. Other exercises will be found beneficial to promote a greater range of movement, such as slowly swinging the arms, raising the shoulder, and rotation of the shoulders forward and backward, which must be carried out systematically, in order to derive health from them, but first teach proper breathing and diet.

I do not wish to go into the forms of exercise which I have employed in development of the chest, as my main object has

been to impress more particularly that development of the lungs and their resistance from disease must be by a proper portion of exercise to the oxidizable, heat-producing foods, particularly fat foods, as they are principally excreted by the lungs in the form of carbon in exchange for oxygen, and may be drawn upon to supply the extra oxidization, heat and energy for movement and exercise, otherwise such must be drawn from the body to deplete, rather than strengthen, the tissues and resistance to disease.

A cold, dry, invigorating climate, with moderately high altitude (about fourteen hundred feet) and plenty of exercise, I believe most conducive to healthy lung development, if combined with proper diet, the principal part as omitted by the consumptive being fat foods; if such foods are omitted, cold climate, high altitudes and exercise are not beneficial, unless they give appetite for such foods and they are added to the diet.

92 State Street.

[Written for the MEDICAL BRIEF.]

Report of Two Cases of Uremia of Pregnancy.

BY H. G. NICKS, M. D.,

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While these cases present little that is new in the etiology of uremia of pregnancy, I report them mainly for two reasons: First, the difference in the onset; second, the large amount of albumen.

Case 1.—Mrs. R., aged twenty-six, second delivery. History: hysterical girlhood; "accouchment a force" about two years ago for uremia; since then nervous and neurotic symptoms abound.

I was engaged to wait on her about the sixth week of pregnancy. She was then reported to have tumor of the womb, and had been advised to have tumor removed. I urged interruption of pregnancy, which was refused. Patient did well to the seventh month, and at that time left the city for a short vacation. Had not been away over five days when I received a telephone message, announcing that swelling of the face and head had appeared. I urged an immediate return home, and attempts were made by purging, diuretics, and sweating, to arrest the general edema.

The conditions, however, gradually became worse, and the patient became delirious. The urine was of light color, specific gravity varying from 1009 to 1012; albumen by Esbach's method, one per cent, gradually increasing to two per cent within seven days. The patient was now delirious and unmanageable, so I decided to deliver. The usual carefully sterilized catheter was inserted, and a sixteen-hour wait ensued. At the end of that time the os was dilated to about the size of a silver dollar. The patient's condition was alarming, and the edema was so great that the pulse could only be found with great difficulty. The patient was anesthetized with chloroform and delivered. An enema, consisting of one pint of normal saline solution was given. During the night the patient rested quietly, and the following day she was rational. Examination of the urine showed specific gravity of 1012, albumen one-half per cent. Twenty-four hours later albumen had disappeared.

The second case was of a more violent type, and the end was disastrous.

I was called at about one A. M., to see Mrs. W., age twenty-nine. I found her complaining of violent pain referred to the epigastrium, and vomiting. I examined the abdomen, and was surprised to find a pregnancy of about eight months. The vomit consisted of watery matter and large masses of unmasticated and indigestible food.

My diagnosis was acute irritative gastritis—prescribed accordingly, and returned home. I had just arrived home when I was again called to see this patient. She had alarmed her family by a first convulsion, and at that time was partially delirious. My fears were at once aroused. I consulted with her husband, and when remedies proved unsuccessful, I catheterized her, obtaining about two ounces of dark urine, which after treatment showed a cloudiness. The convulsions were becoming more frequent. Dr. Potts was called in consultation; a careful examination was made, and a

forcible delivery was decided upon. All movements of the child had ceased.

She was taken to the Baptist Sanitarium and delivered.

She was given enema (high rectal) of one quart of normal saline solution.

Instructions were left to control convulsions by chloroform inhalations, and to catheterize every six hours, and twenty centigrammes of croton oil to be given one hour later.

The enema was not retained. About eleven P. M., hypodermoclysis was resorted to. Next morning the patient was rational, convulsions had ceased, but the lungs presented symptoms of edema.

I was called at 8:30 P. M., and was informed that the patient was dying. I hastened to her bedside, and found that the convulsions and pulmonary edema had caused her death. The urine of this patient presented some peculiarities. That which was first drawn in the early morning containing but two per cent of albumen, that drawn late in the day, eight and one-half per cent; gravity 1020

933 Goodfellow Avenue.

[Written for the MEDICAL BRIEF.]

Medico-Legal Examinations.

BY E. E. MOSS, A. M., LL. B.,

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The most frequent occasions when physicians are called in to aid the court in arriving at a legal conclusion is in cases of homicide, or in injuries to the person.

In conducting a medico-legal examination, it is of the utmost importance that the physician should use extreme care, and that his testimony be given with absolute certainty. In order that he should be so prepared, he should have a note-book at hand in making his examinations, and record everything in detail, however minute, concerning the case under consideration. He must not only discover the cause of death or injury, but he must be able from his examination to negative every other cause.

The examination should be made at the earliest possible moment after the death or injury. The physician should examine carefully the locality, evidences of struggle, blood stains, condition and position of the body, clothing, condition of the hands and nails, weapons, bottles, and everything in the room surrounding the body. If an infant, the size should be ascertained, hair and nails, and every feature noted which will lead to positive evidence.

In cases of suspected poisoning it is of the utmost importance that no possible doubts should arise in reference to the parts of the body which are removed for chemical analysis. In cases of this kind it is imperative that the physician should be accompanied by another physician, or if not available some responsible person, who shall be present while the physician performs his autopsy. It is equally imperative that the parts removed should be placed in securely sealed glass jars for this purpose, and so transported to the chemical laboratory that there can be no possible means of contamination or outside interference.

It is an easy matter for the physician if he has his facts well in hand to be on his guard, and to give intelligent testimony at all times. If he is not properly prepared, he is very often in danger of meeting a lawyer who has given weeks and possibly months of study to the exact subject in hand, and who will put him in a ridiculous light before he is aware of it.

In giving his testimony, it is necessary that the physician should, as far as possible, eschew all technical terms, and state the facts in language which is intelligible to a jury, which is necessarily composed of laymen.

301 West Markham Street.

[Written for the MEDICAL BRIEF.]

Prostatodynia.

BY E. W. P. DOWNING, M. D.,
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This painful affection is not mentioned as often as coccygodynia, but is just as serious an affection to those who have the misfortune to endure this dull aching pain. It is usually due to the pressure of a loaded rectum, and the relief given by a cold water enema, which unloads the bowels effectually is complete, and gratefully acknowledged by the patient.

[Written for the MEDICAL BRIEF.]

Adenoid Vegetations.

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The term "adenoid" is unfortunate, as it is anatomically incorrect. Formerly it was supposed the hypertrophy was made up of secreting glandular tissue, hence the term "adenoid." At the present time this is known to be incorrect. Under the microscope this hypertrophy is found to be covered with a stratified columnar epithelium. Deep furrows cover the surface, from which exude a mucous secretion. Lymphoid cells, massed into nodes, with internodal spaces of a low form of connective tissue, make up the bulk of the growth. This hypertrophy obstructs the passage of air through the nose, interferes with sound waves that should pass through the nose, and impairs the sound board functions of the pharynx. Hyperemia of the surrounding mucous membrane occurs, extending to the mucous membrane of the eustachian tube and middle ear, causing closure of eustachian tube, retracted drum-head, and eventually setting up an inflammation in the middle ear. This loosely connected lymphoid tissue is a splendid receptacle for micro-organism, especially in those forms of infectious or contagious diseases involving the mucous membrane of the pharynx and lungs. The pneumococcus, streptococcus pyogenes, bacillus diphtheria, etc., locate here, forming a nidus from which inflammation extends to the nose in front, the middle ear in the rear, and through the middle ear to the brain.

The blood vessels are few and atypical in structure, while the lymph vessels lie at the bottom of the furrows, as in the solitary follicle of the intestine. The circulation of the lymph is very sluggish. As there is a very close anatomical relation between the lymph vessels of the naso-pharynx and those of the brain, a sluggish lymphatic circulation in the naso-pharynx causes the lymphatic circulation at the base of the brain to be sluggish, giving rise in the patient to a loss of the power of concentration upon any one thing (aprosexia) and mental hebetude. Sometimes cysts are found in these hypertrophies. In adults the tendency to connective tissue formation is greater than in children, therefore these growths are harder in adults than in children. In long-standing cases the superior maxillary bone becomes contracted, the roof of the mouth narrow and highly arched from constant mouth breathing.

Children may be born with this hypertrophy, especially when the parents have syphilis, tuberculosis, etc. Usually occurs during the period embraced between the fourth and tenth years, especially in children with bad sanitary surroundings, and with a tendency to scrofula, tuberculosis, lymphatism, etc. The exanthemata, diphtheria and diseases involving the nose and pharynx are the exciting causes.

The first symptoms of adenoids are recurring colds in the head, a stuffing up of the nose, and a tendency at times to a muco-purulent discharge. On inquiry, find that the patient sleeps with the mouth open, and snores. Examination reveals the expression peculiar to a mouth-breather (parted lips, dilated nose, broadened bridge of nose, protuberant eyeballs, and an appearance of listlessness and imbecility, owing to the loss of expression). May have impaired breathing, lack of resonance of voice, deafness, and, in marked cases, aural discharges, nose bleeding, night terrors, nocturnal incontinence of urine and aprosexia. The contraction of the superior maxillary, thereby narrowing the mouth, causes the second teeth to be crowded.

It is noted, by placing the finger at the anterior nares, that when these hypertrophies, which fill up the vault of the pharynx, thereby closing the posterior nares, are present, the air does not pass through the nose as it should. The patient may be directed to blow out a burning match placed beneath the anterior nares with a current of air forced through the nose. If not successful, indicates that the passage of air through the nose is interfered with. Examination

with the rhinoscope is very difficult in children, but when used, find the growth in vault of pharynx, at times closing completely the posterior nares, filling the fossa of Rosenmuller, and extending downward into the pharynx. Digital examination reveals in the vault of the pharynx a mass of soft jelly-like consistency, whose furrowed surface feels like a "bagful of earthworms." It breaks down and bleeds from pressure of finger. Often the positive diagnosis is made with the removal of the hypertrophy.

If the patient is tuberculous and sanitary surroundings bad, the involvement of the middle ear and brain may cause death. These hypertrophies complicating diseases of the respiratory tract, the exanthemata, diphtheria, etc., may exert an unfavorable effect. In cases of long standing there is always impairment of the physical and mental development. Usually after puberty the lymphatic hypertrophy tends to atrophy. The only treatment of adenoids is the removal by a simple, safe, and painless operation. Sprays, caustics, the galvanic cautery, etc., have been employed, but their utility is doubtful. It is important that the growths be removed early, as there are ever present the dangers of ear complications, brain involvement, deformities of the jaw and mouth, and greater liability to the contagious diseases. There is no operation in the whole domain of surgery so simple, yet attended by better results than that of removing these hypertrophies.

General anesthesia is never induced except with children of a very nervous temperament, as the operation is nearly instantaneous. If anesthesia becomes necessary, ethyl bromide is preferable, because of its transitory effect. Local anesthesia, by cocaine, is usually sufficient. The instrument used is either the finger, curette, or the adenoid forceps.

If local anesthesia is induced, the child is wrapped in a sheet, and held by the nurse, so that the child squarely faces the surgeon. An assistant should steady the head. When the mass is soft and spongy, the finger, protected by a metal finger guard is introduced into the pharynx behind the soft palate, and scrapes away the growths with the nail. When the hypertrophies are scattered about the pharynx in nodules, the curette is used. The tongue is depressed, and the instrument is passed back of the palate, removing one by one the independent vegetations. When the mass fills up the entire vault of pharynx the adenoid forceps are used. This instrument is passed behind the palate to the vault of pharynx, as the curette was introduced, its blades opened so that they will include the whole vault of the pharynx, then closed on the hypertrophied tissue lying therein. May also use the wire snare through the mouth in the same manner the curette was used, or through the nares. If general anesthetic is used, the patient is laid on side so that blood can not get into the larynx. A mouth gag is rarely required.

Complications following this operation are rare, if the surgeon operates aseptically. Bleeding at times might become serious. Pressure to the vault will generally control any hemorrhage. May injure the bone with curette. This instrument should only be used by those who are thoroughly trained, and only by them when they find the adenoid forceps insufficient.

The after treatment consists of keeping the naso-pharynx clean with a two per cent solution of carbolic acid or boric acid, and building up the health of patient, and correcting any constitutional dyscrasia. As tonics, cod-liver oil and syrup iodide of iron are recommended. Plenty of outdoor exercise, and change of surroundings are recommended. The sanitary surroundings are to be carefully looked after.

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[Written for the MEDICAL BRIEF.]

The Superiority of Liquid Medicines.

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Some fourteen years ago the writer indulged the plea in one of the medical monthlies of that time that liquid medicines possessed many virtues over medicines in concrete form; that they were more readily absorbed; were assimilable

where solid forms were not, and that they would exert their characteristic energies rapidly, thus bridging many emergencies, when to await the slow process of dissolvement of pills, granules, capsules, etc., in valuable time vital to the patient, would be lost. Continuous observation and research and experimentation along the line of forms of remedial agents best calculated and adopted to exert readiest favorable influence, have so strengthened my early views that the dominant idea above given has assumed the phase of settled conviction. The writer disclaims any senseless prejudice against any tablet, granule, capsule, pill or other dry formation; indeed, in this age of beautiful pharmacal productions, the practitioner can hardly refrain from giving them place on his list of remedial agencies, however close he may hold to tinctures, fluid extracts, or medicines in form of elixirs. In accepting any form of any designated remedy, the prescriber must know why it were better to give such form in a given case. To this whole question the following deductions must be referred.

In a recent issue of the *American Medical Journal* we gave expression to some conclusions bearing upon the question herein sprung, and we beg the indulgence of the editor of the MEDICAL BRIEF to present a word from that study:

"Given a case, say inflammation. We will make it inflammation of the stomach. The writer has seen a case with temperature of 108° F., with concomitants of no less proportional severity. All will admit that such case was critical, also that agents quick of action, yet safe in action, must be brought to bear."

"To proceed to direct argument we affirm that remedies in readiest form to give up and impart their energies must take precedence. Inflammation of the viscus spoken would mean involvement of mucous and gastric follicles, nerve loops, interstitial tissue and, perhaps, the myological strata. Undoubtedly such pathological involvement would allow of least ability on part of absorbents. Digestive and absorptive powers throughout this field would be next to *nil*. A concrete form—pill or granule—dropped in this caldron-like cavity, would adhere to one spot. It would dissolve very slowly, if at all, and not before fluid had been poured in. Energy given out by it finally, would proceed from a very circumscribed area, yet it might paralyze nerve loops in that small plane. Again, a medicine in form of a granule is liable to fall into a sulcus and there remain during dissolvement, resulting in cases in corrosion. Suppose, on the other hand, that a granule which is alkaloidal dissolve rapidly. The dynamical display to proceed from a very circumscribed point the effect might prove disastrous. Alleged engorgement of the liver is apt to get medicines in pill form. The writer has known the hard globes to pass undissolved. These cases were not inflammatory, but the digestive function was at low decline. If we might choose to give medicines in pill formation it would be in a case non-emergent, not inflammatory, but wherein there was food appetency as well as food digestive ability."

Pursuing this study further brings us to state that substances of little solubility, when reduced to a compact mass, often refuse to dissolve at all, or so slightly as to almost abort their usefulness in therapy. This specially applies to resinous materials and extractives, that once thrown out of solution are with great difficulty redissolved, but which, in form of solution become thoroughly and immediately disseminated in minute particles that are assimilated very quickly, under the large amount of fluids touching them. Again, compressed drugs of a violent or irritating nature are likely to create an inflammation when they lie in contact with a surface wherein they may settle in their course through the alimentary canal, and thus, especially in cases like typhoid fever, create a condition that may prove fatal to the patient. These deductions are not overdrawn. It behooves practicians to pause in their mad rush for concrete and compressed forms of medicines, and rethink and reconsider the deeper phase of this question, that medical nihilism do not engulf another wing of the body medicale, thus resulting in further distrust of a grand essential in the handling of disease. The day that physicians of a certain school began to relinquish the use of fluid medicines, and

turn their attention to syntheticals and compressed substances, marked the advent of their distrust in medicines and their disappointment in medication, and led to the prominent use of mechanical means with which to ply the sick.

Whether a disease in question be one of excess, defect or perversion, it is evident that glands and nerves within the sphere of inflammation, congestion; whether of atony or irritation; we say, every gland and nerve is out of normal action. It is obvious that in prescribing known agents remedial, they should be in form to admit of readiest application, That no one plane involved can do much, the medicament must take form to come at once and evenly to as great area as possible, that the action may be spread out and thus impress many peripheræ simultaneously. Hereby we avoid the possibility of corrosion. We avoid the possibility of shock. We have called upon the greatest number of secernents, thus distributing energy of one remedy to glands and nerves as they, in their weakened capacity, may appropriate.

In conclusion, it may not be amiss to state that having been of these convictions for a score or more of years, it was but natural that we should hold to and adopt the use of liquid medicines almost exclusively. In the selection of the same we have been careful to choose the very choicest in form and quality and elegance, regardless of cost. Having been guided thus, our faith in the curative powers of medicines increases with the years of added experience.

[Written for the MEDICAL BRIEF.]

Marriage and Divorce.

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[Paper 2.]

In the most primitive state of family life, the male element is a transient one. The true family consists of mother and child. Cohabitation is periodic only. During this period, great and violent passion is displayed. The male fights to the death all other males which attempt to interfere or trespass on his family preserves, and the female expresses great preference for the male of her choice. This period is measured by a few days, when their ardent flame dies, and the male takes up a solitary existence, only varied by occasional fights with other males, which at this time are usually few and far between. This may be said to be the plan of sexual union among most of the higher animals, and obtains among a few tribes of human beings. We read in Herodotus concerning the customs of the Amazons, a nation of women, who drove away all their male offspring at the age of puberty, and only associated with males of another entirely distinct tribe, and at certain brief seasons during the year. He spoke of these women as being very warlike, and maintaining their state of single blessedness by force of arms, which was not to be despised by the trained soldiers of Babylon and Persia.

It is not likely that Herodotus understood the correct principle of anthropology, which lay at the bottom of this manner of life, but he was a very penetrating old eavesdropper, and he told the good and the bad pretty close to the truth.

This periodic display of animal passion among human beings has, as civilization advances, become in a great measure extinct, though during the later days of the Roman republic and the early days of the empire, the Romans were accustomed to hold, annually, the feast of Venus, during which period all classes of society, from lowest to highest, gave themselves up to unbridled sexual debauchery, in which all ties, whether of marriage or consanguinity, were forgotten. From all accounts the devil was unchained, and pandemonium reigned.

This, scientific men believe to have been a lingering relic of a mating season, disfigured and polluted by religious excitement and debased morality of an effete and decaying people. Among savages living approximately in a state of nature, such periodic displays were to be expected, and it is only when they appear out of place, among a highly civilized race, that they appear ridiculous and obscene.

We believe the next stage in the evolution of marriage to be the marriage by

capture. Here the man and woman live together, bring up the children, each protecting and aiding the other. The families are widely scattered, living entirely by hunting and fishing. Real communities do not exist, because the food supply is too precarious. The young man at maturity leaves the home of his father and mother, and wanders until he sees near the abode of some other man a young woman that suits his fancy. There may be no wooing in the ordinary sense of the word, but at some general meeting of the people, perhaps for a general hunt, he may throw her a piece of meat, and she may admire his dexterity in handling his weapons in the hunt. He then picks out some cave, or erects some sort of an abode in the shape of a fortress against the other fauna of the forest, carries there such implements of household furniture as may be procured, and commences to lay in wait for his bride. It is just barely possible that when he finally pounces upon her she may not either fight or cry out to the utmost of her ability, but she is expected to make some considerable resistance.

He binds her and carries her away to his secluded home, and there guards her with great circumspection until she becomes habituated to her new surroundings.

If this sort of proceeding took place at the present time in the Southern States, the perpetrator would be burned at the stake, and his ears and fingers would be treasured up as mementos by some of the highly cultivated inhabitants of such localities. Many of the rapes which are perpetrated by a semi-savage people under the excitement of drink and idle life, are but a reversion to the original type. At certain periods the negro is barely half responsible for his conduct along these lines. It is likely that the best means of putting a stop to such ungovernable passion is to kill the exhibitor of it, but great care should be exercised to make such executions as private as possible, lest the sleeping savage be awakened in themselves, where it lies buried only a few generations deeper.

In the next stage of evolution, a rudimentary community has been ordained. Man has ceased to fight his battles alone, but unites with a few closely related families for mutual protection. The separated homes may be clustered into a village, each family retaining its identity, or all may come to dwell in one large house. In the latter case, the general welfare of the clan is considered, and that of subordinate families allowed to deteriorate. In the patriarchal system, the father retains control over his adult sons and their children. Instead of breaking up as fast as maturity comes, and forming separate families of their own, the family remains together.

In this stage of society, marriage alliances with other powerful families become expedient, and for this reason polygamy becomes frequent. The marriage by capture is replaced by the marriage by purchase. Presents are exchanged freely, and the bride led home with rejoicing, and a marriage feast is given in which both families join.

The great thing in view, in this sort of community, is fighting strength. A son is considered far more desirable than a daughter, and the favorite wife is the one who bears a son. The marriage tie is subject to divorce for barrenness only, and very often the marriage tie is not thought binding until the wife has borne a child. If this event does not take place within a reasonable time, a second wife is certain to be taken, and the first will fall into disfavor, and likely be sent back to her father's house.

It is not infrequent that concubinage is practiced. These tribes or large families are continually at war, and the captives of battle become family servants, and wherever female slaves or serfs are retained in the households, as the property of the master, they nearly always sustain the relation to him of Abraham and Hagar, and in case the real wife has no son, and the concubine has a son, it is quite possible that she may become the favorite.

This relation was borne time and again between Southern slave owners and their female slaves before the war, in this country, as the large number of yellow faces will testify. In this sort of society, where the wife is divorced, she takes back with her the dowry which she brought to her husband.

We have some very quaint records of divorce, picked out of the large number of clay tablets discovered in the ruins of Ninevah. Some of these are more than ten thousand years old. We learn from these that in case the husband had redeemed the wife from slavery by paying her value to her master, the marriage contract provided a penalty, sometimes of death, if she ran away or left her husband. Such a wife was not usually divorced, but could be reduced to a very subordinate position. Any children she might have, however, were legitimate. When the wife brought a dower it was common to write a bill of divorce somewhat after this form: We will suppose the husband's name was Joseph, his wife's name was Naomi, and the place of her father's abode was Damascus: "I Joseph, of Nineveh, hereby settle upon my wife, Naomi, in testimony that she has ever been to me a true and faithful wife, the sum of two talents of silver, the same being the sum which she brought to me, as her dower, and the same shall in no case be taken from her, even though she remove to Damascus, or become the wife of another man."

This document would be transcribed three times upon a tablet, each copy being signed by Joseph and Naomi, and the priest of the temple, who officiated as a sort of notary. The tablet was then baked in the public oven, broken in three pieces, one piece being retained by Joseph, one by Naomi, and the other piece being kept in the public library at the temple, where it was found, thousands of years after, when the bones of Joseph and Naomi had long ago crumbled to ashes.

It took the best European scholars over a hundred years constant study before they were able to translate correctly the cuneiform characters in which these tablets were written, but at last the work has been accomplished, and we are now admitted into the very daily life of these people.

Among such tribes, polygamy never seemed wrong, though the household was constantly in the midst of quarrels and intrigues from the adherents of these plural wives. The necessity for large and powerful families, such as Abraham, Isaac, Jacob and Esau, had over-ridden every other consideration. Though these people tended flocks or existed as robbers in the desert, they dwelt in the same camp, and when they erected a fortified town of sun-burned bricks, their manner of life did not materially change, for the greater portion of the year they continued nomadic.

The life lived by many of the tribes of American Indians resembled this state; the matriarchate was the basis that held the families together, both in the long house of the Iroquois, and in the pueblos of the Aztecs and Toltecs. In these great dwellings were often assembled thousands of individuals, all related in some degree on the side of the mother. The genealogies were always reckoned on this side of the house.

The heirs of a man were the sons of his sister, or his cousins, the sons of his maternal aunts. In these houses, the husbands of the women were considered as a sort of interlopers. They had no part in the common property of the house. He had no claim for support in old age on his own sons save through their charity, but he had a claim on his nephews, brothers, and maternal uncles.

A man never marries in his own house. Every communal dwelling was marked with a totem or heraldic device, generally named from some animal or bird, such as the wolf, the bear, the eagle, the tortoise, or the hawk. There were generally about eight or ten of these totems in a tribe or nation. Every man married outside of his own totem. All the children followed the totem of the mother. When a man of the bear totem married a woman of the hawk totem, the children would all be hawks.

Among these people, as among all races who dwell so many in family, the marriage tie is a very loose one, and divorce is common, but it is the man who is sent away, and not the wife. These large families dwell more harmoniously than when under the patriarchate, though the father have the power of life and death over all members of his household. The unmarried women are generally very promiscuous in their favors, but the married ones are generally chaste, unless where they have been subjected to white influences. They are people who usually conceal their emotions very carefully, and

the husband looks calmly on and sees the woman do the work of making camp, tilling the soil, preserving food, cutting fuel, etc., without lending any helping hand; still connubial attachment is often markedly strong. The man is expected to hunt and fight, and further than that he is not expected to exercise his muscles, and his squaw would despise him for lowering his dignity in any such menial occupation, but they have often been known to starve themselves to death when food was unprocurable in order that the wife and children might have enough to keep them alive.

What is known as the love choice has more to do with marriage among these people than among those who follow the patriarchate. The greatest chief may be the poorest man in the tribe, yet the qualities which make him great are so completely associated with his true manhood that he at once gains the admiration of the women of his tribe. He may throw down his blanket where he chooses, and it is pretty apt to remain there.

A certain traveler tells of a custom of marital separation that abides among the Sioux in some localities. These do not live in the long house or pueblo, but occupy tents, and the communal interests are not so marked as in other tribes which I have mentioned. The father has rather more authority over his household, and polygamy may be occasionally found. A husband may discipline his wife, and make her obey him if he desires, and her male relations are not likely to interfere. If his wife prefer another man to him, and makes up her mind to leave her husband, if she once gets inside the other man's tent, her husband will not molest her. He considers her the wife of the other man. But if he catches her before she gets there, while yet on the way, he may beat the stuffing out of her, and take her back with him. This seldom occurs, however, and domestic quarrels are very rare.

Parkman, the historian, spent many months among the Sioux, and relates one occasion when a squaw got very much out of patience with her husband over some trivial cause. She scolded him, threw camp utensils at his head, and finally in her wrath pulled the tent down on him. He never moved or said a word, his head appeared calmly above the ruins still smoking his pipe. She grabbed the pipe out of his mouth and broke it, and started to leave the camp. He then rose, selected a good-sized club out of the numerous weapons with which the camp was strewn, and pounded her up in very artistic state. Parkman thought she would be killed, but she appeared working about the camp next day, as happy as need be.

Among the mountains of Thibet, on the borders of China and India, there is occasionally seen what is known as polyandria, a woman having several husbands. One form is characterized by all the women of one village holding themselves free to all the men of the other village, and *vice versa*. In this condition the communistic idea has been greatly exaggerated. In another form, when a man marries a woman, he marries all her sisters. Another form, when a man marries a wife, she is at the same time the wife of all his brothers.

Among the ancient Hebrews it was considered a man's bounden duty to marry his brother's widow, or even the widow of a more distant relative, as in the case of Ruth and Boaz. Again, it was not considered the least out of form for a girl to marry her uncle. It is found in nearly all of these communities that the men are absent from home nearly all the year, tending their flocks and herds in the mountains.

Our own race had its origin in the mountains of Persia and Afghanistan. Among the earliest records of Egypt and Babylon, there is note of a race, light-haired and blue-eyed, tall and giant in stature, who roamed the forests of the far north of Europe and Asia, deep drinkers, prodigious eaters, valiant fighters, and clothed in the skins of wild beasts they had slain, or going naked. These people had the habit of swarming, and when a village became too populous, a portion of the people would take their belongings and seek a home elsewhere. Among these people polygamy is never known. They finally filled the entire continent of Europe, and have never been driven out. The Arabians pushed their way into Spain, but were driven out at last. A few of the followers of Mongol,

Hengiest and Kahn fought their way into Hungary, and became absorbed by the race they conquered. This is the only instance where their system has been injured.

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[Written for the MEDICAL BRIEF.]

Internal Hemorrhoids.

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Internal hemorrhoids are varicosities of the middle or superior hemorrhoidal vessels, and arise entirely within the anus. They begin at the points of anastomosis between the portal and caval systems, usually just within the anus, and gradually extend up a variable distance to the larger trunks and plexuses. The causes and development of internal hemorrhoids are much the same as those of the external variety, and their appearance is very similar, although they differ in color. The internal hemorrhoids are covered with mucous membrane, and are bright red in color, except the old venous variety, in which the mucous membrane from exposure assumes a cutaneous appearance. A given patient, however, may have both external and internal hemorrhoids, and even all varieties of the internal, at one time.

Varieties.—There are two chief varieties, capillary and venous, although some writers include a third arterial form.

Capillary.—The capillary hemorrhoids are smaller sized tumors than the venous, and are rarely larger than the end of the little finger, and sometimes very much smaller. They consist of superficial vessels in the mucous membrane, the capillaries and veins, which in reality form an erectile tissue resembling an arterial nevus. They are spongy in texture, and resemble a strawberry in appearance. Early in their existence they have a granular surface covered with a very thin wall, and are, therefore, very liable to bleed. Later, plastic exudate and thickened areolar tissue covers the vessel, and hemorrhage is less liable. The gentlest examination, or even the passage of the bowel movement is sufficient to start hemorrhage. I recall a case which bled copiously, and on examination the pile was no larger than the head of a black pin. Excessive hemorrhage, particularly if spurting in character, is pathognomonic of the capillary variety of hemorrhoids. Frequently large amounts of blood are lost, and a number of deaths are recorded as resulting from this cause. Of course, a large capillary or arteriole is involved in such a case. This tendency to great loss of blood makes the capillary hemorrhoid much more dangerous to the patient than the venous variety. The capillary hemorrhoid may exist alone or associated with the venous variety, and a given hemorrhoid may be made up of both forms. It makes little difference in the radical treatment which variety is present, but in the palliative treatment this distinction is imperative; for the patient may become exsanguinated while the physician is temporizing with injections or the application of styptics. The capillary variety rarely protrude, cause any pain, or produce any of the discomforts which are attendant upon the other varieties of hemorrhoids. Hemorrhage itself is the cardinal symptom, and requires energetic, sometimes even heroic treatment.

Venous.—The venous variety is more common than the capillary, and consists of a large tumor about one-half to one inch across its base, with a mucous membrane covering, which glistens and is bluish or livid in color. Matthews reports seeing one as large as a small orange, and, of course, such a sized tumor would block up more or less the whole lumen of the rectum. The venous hemorrhoid is situated in the submucous connective tissue, and is formed of a dilated and varicosed vein with its venous capillaries, together with its arterial capillary supply, for these tumors are not purely venous. The hemorrhage, however, is generally venous and not serious, at least in a healthy subject. Sometimes in an anemic or advanced tubercular patient the loss of even a small amount of blood may be alarming. In many instances the bleeding temporarily relieves the condition in plethoric, uremic, or atheromatous subjects. Bleed-

ing does not occur under ordinary conditions, and only rarely from the traumatism of the passage of constipated movements, but results from ulceration, and is usually oozing in character. Sometimes a cavernous blood space is opened by ulceration or laceration, and the hemorrhage may be quite severe.

With each bowel movement the hemorrhoidal mass acts as an obstruction, and the feces are forced through. This increased muscular action drags down the hemorrhoid and the adjoining mucous membrane until they prolapse, thereby increasing also the size of the hemorrhoid itself. Finally, when they have attained considerable size, they prolapse easily, and are difficult to replace, as they act as foreign bodies, and tend to excite the sphincters.

Symptoms. — Hemorrhoids sometimes exist for years without causing any symptoms, and again cause severe symptoms from the beginning. They probably set up more reflex nervous symptoms than any other disease. When they are of large size, they produce a sensation of fullness or distention of the rectum, as if some foreign substance were present. During defecation the tumor is forced within the grasp of the sphincter, and tenesmus is set up, with also a feeling of nausea and sickness. Sometimes the tenesmus is agonizing, and its daily repetition exhausts the patient. After each bowel movement he must replace the hemorrhoid with his finger, and in doing so is likely to induce a spasm of the sphincter. If the hemorrhoid is allowed to remain within the grasp of the sphincter, it becomes strangulated, and finally gangrene develops, and the hemorrhoid sloughs off. Thus Nature attempts to cure the trouble. Sometimes the slough or the surface beneath it becomes infected, and pyemia, with perhaps fatal results, is the termination, or an abscess develops, and a fistula is the sequel. If strangulation and sloughing do not occur, the sphincter gradually becomes relaxed, and the piles are forced out with coughing, sneezing, or stooping, and the piles remain out altogether. An acrid, irritating mucus discharges from the anus, due to the chronic proctitis, and keeps the perineum moist, and often excoriated, thus favoring the growth of warty excrescences. External hemorrhoids also develop from the degree of prolapse that occurs.

Bleeding in some degree is a symptom of all internal hemorrhoids. It may be slight, a mere streaking of the passages, or profuse enough to cause fainting. Frequently hemorrhage follows each movement of the bowels for a while, and then ceases for several days or weeks, only to recur again about the time the patient thinks he is cured. This constant loss of blood produces an anemia very suggestive of malignant disease. Prolapse of the tumor always favors bleeding. In women a hemorrhagic flux sometimes replaces menstruation, and in apoplectic subjects, or those with atheroma, this periodic loss of blood lessens the tension of the blood vessels, and thus diminishes the tendency of the cerebral vessels to rupture. In such cases the prudent surgeon hesitates before removing the outlet.

Hemorrhoids of any variety are prone to exacerbations of inflammation, followed by periods of rest. During the inflammation they are very liable to ulcerate, slough, or develop abscesses beneath them.

When the tumor is swollen or strangulated, and actively inflamed, the sphincter alternately contracts and relaxes, causing excruciating pain, which lasts until the hemorrhoid sloughs off, is operated upon, or is relieved by local remedies. In old cases, the hemorrhoidal wall becomes tough and hypertrophied.

Diagnosis.—The diagnosis of internal hemorrhoids *per se* is quite easy, but the differentiation of the variety is much more difficult. Hemorrhage is the chief symptom, and may be either venous or arterial in both varieties. The patient's description is something like this: during defecation, and perhaps before the bowels have completely moved, a more or less severe hemorrhage occurred, which lasted for some time after he had finished his toilet; the blood came in spurts, and was bright red; a dizzy feeling came on, and he became pallid and clammy; there was little or no pain, and no protrusion to be seen.

With such a history, the rectum should be thoroughly examined in a good light, and with a speculum. The hemorrhoid may be small and elude digital examina-

tion, as it is soft and velvety, but with a speculum it can easily be found, because the stretching of the bowel in dilating with the speculum usually starts the hemorrhage afresh, and the blood spurts or bubbles from the hemorrhoid. This is the capillary hemorrhoid.

In another case, the patient says that after the bowels move, he has to retain his seat, because the blood continues to drop for several minutes, and if crowded for time he has to go about his duties with the blood dripping and soiling his clothes. Here the hemorrhage is less severe, because the connective tissue growth takes on a plastic infiltration, forming a thick covering, which can be torn only by such a considerable force as is only occasionally applied. The rectum feels as though it were only partially emptied, and he strains trying to expel something. Usually on palpation he feels the hemorrhoid within the grasp of the sphincters, and unless it is replaced, the tenesmus continues for perhaps hours. This is the venous hemorrhoid.

The capillary hemorrhoid is soft, spongy, or granular, and easily yields or tears on pressure. Hence hemorrhage results from even a slight injury, and this the small capillary hemorrhoid is a source of great danger to the system from loss of blood, while the large, well-formed venous hemorrhoid is not so dangerous. The venous hemorrhoid, when of large size, will protrude, and if a patient has hemorrhoids, and assures us there is no protrusion, we suspect internal hemorrhoids of the small and more probably capillary variety. Digital examination is unreliable in diagnosing internal hemorrhoids, because even good-sized tumors can not be detected after they have been returned within the rectum, unless pedunculated. Inspection assists only if there is protrusion. Let the patient retire to the lavatory, and strain a little, trying to force out the hemorrhoids. If this fails, or is not convenient, dilate the sphincter with a bivalve speculum, and the pile tumors usually fall in between the blades. If the tumors are low in the rectum, they may readily be seen by inserting one blade of a Sims speculum.

Uncomplicated internal hemorrhoids cause little or no disturbance, but when they become inflamed or ulcerated, they cause great pain and distress. This condition is popularly called an attack of piles, and applies to both the internal and external forms when inflamed. They may remain quiet for a long time, and then without any apparent cause become inflamed. Later, the condition subsides, and the patient often considers himself cured. In detailing the condition he may say he has had piles before but was cured by some remedy or other. Of course, the hemorrhoids are there, but are not producing any symptoms. Although generally no apparent cause of the inflammation is known, yet, in many instances, the attack is precipitated by diarrhea, exposure to cold, bicycle or horseback riding, excessive venery, alcohol, tobacco, or sometimes uncleanliness or rough handling of the parts with coarse paper in the toilet.

Other symptoms of internal hemorrhoids are vague and uncertain, as they occur in other rectal troubles, and many arise from remote causes. Pain in the thighs or back, sensation of heat or burning in the rectum and frequent micturition, are all too unreliable to be considered worthy symptoms of any particular disease. It is well to take into account only such definite indications as relate directly to the rectum and anus, but these significant tokens should require a thorough examination.

Constipation must be considered only a coincident with internal hemorrhoids, and not a specific cause, because fully as many patients are not constipated as are; and while temporary obstipation occurs occasionally in every one, internal hemorrhoids are frequent in those whose bowels have always been regular. Hereditary predisposition to hemorrhoids is very pronounced, and commonly a whole family is afflicted, or the patient says his parents or grandparents were treated for the disorder. Women who have borne children nearly all suffer from hemorrhoids, which frequently are much prolapsed. Children only rarely have the internal variety, nor is it common in old age, although the persons may have endured considerable earlier in life, because the hemorrhoid ultimately atrophies, or, as the laity says, "dries up."

All patients afflicted with hemorrhoids assume a careworn appearance, deteriorate in health, and become anemic and emaciated.

The mucous membrane between the hemorrhoidal tumors is thrown into horizontal folds which become lacerated by the hard feces passing over them, and fissures result. In other cases these folds stretch, and the whole ring of mucous membrane prolapses during defecation. After internal hemorrhoids have been diagnosed, all other pelvic organs should be examined, to determine their relation to the rectal trouble. An enlarged prostate or urethral stricture, by necessitating straining during urination, will aid in the development of hemorrhoids. A displaced uterus or diseased ovary, a calculus in the bladder, hernia, varicocele, proctitis or colitis may be a cause.

It must be remembered that any one of these is sufficient not only to produce the hemorrhoids that brought the patient to us, but if we remove these hemorrhoids ever so carefully and radically, and fail to remedy the exciting cause, the hemorrhoids are sure to return. The treatment of any other diseased condition bearing on the rectum or obstructing its venous flow, is fully as essential as the thorough removal of the present tumors. The writer has seen a number such cases where the hemorrhoids had been removed and new ones developed, and where when treatment was directed to these adjacent organs, the hemorrhoidal trouble was cured permanently.

599 East Forty-Sixth Street.

[Written for the MEDICAL BRIEF.]

Some Factors That Prevent Success in Abdominal and Pelvic Surgery.

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The surgeon who wishes to succeed must consider many things besides the purely technical part of his work, as applied to the operation itself.

The preparation of the patient before operating, the after treatment, and the unknown diseases that may lie dormant only to spring into action and take the life of his patient in spite of all his care, even though the operation was skillfully done, and, considered alone, entirely successful.

No doubt many patients die who might have been saved had they been properly prepared prior to the operation, and many others fail to get the relief they hoped for because the treatment should have been directed toward the cure of syphilis and the surgery omitted.

Often patients come to the hospital with serious abdominal affections and desire an operation the next day who should be prepared for operation for several days, or even weeks, to get them in as good condition as possible. It is the rule that these people are constipated, and the bowels filled with excrement and ptomaines that should be cleared out before any operative procedure is even thought of. It is really surprising how much old dry hard material may remain in the bowel for days, and apparently for weeks, even after a large amount of salines has been given. I have repeatedly had cases where the patient had taken cathartics until the stools were composed of nothing but the watery secretions of the bowels, and yet several days later hard, solid motions were passed. There seems to be an accumulation in the cecum that is with difficulty dislodged.

I have found that two or three ounces of glycerine, given as an enema, and followed by a pint or more of hot soapy water, will start these masses, and clear the entire colon. Glycerine and olive oil, in equal parts, taken in tablespoonful doses, three times daily for several days, will act as a gentle laxative, and often accomplish more than the more drastic cathartics. The mistake is often made of purging and starving these patients too severely immediately preceding the operation. Many of them are very weak, and the added drain on the system is more than they are able to stand.

In Reed's book on gynecology occurs the following, with which I agree: "It is highly important to urge a word of caution against the prevalent habit of purging patients excessively before operations. It is not unusual for patients to

be forced to have a dozen or more dejections during the twelve or twenty-four hours before undergoing the ordeal of an abdominal section, and during this time they are kept upon a restricted diet, and often during the final twelve or fifteen hours are given nothing at all to eat.

"It should be borne in mind that such hypercatharsis (a) weakens the patient; (b) still further weakens peristalsis; (c) aggravates post-operative thirst; and (d) by draining the circulation, stimulates all the absorbent functions, and thus lays the foundation for systemic sepsis in the presence of unavoidable infection. The practice is wholly wrong, and should be abandoned."

Many patients are morphine takers, and will not inform their surgeon of the fact, even if questioned on the subject. Of course this is apparent as soon as seen in many cases by the contracted pupil, needle-pricked legs, etc., but in some persons who have recently begun the habit it is not so apparent. It is not wise—in fact, impossible—to take away the morphine before the operation, or even to limit the amount taken to any marked degree, because they are accustomed to the drug, and to remove it suddenly would cause very serious depression. After the operation, however, it may be very much reduced in amount, and plenty of good nourishing food substituted. Dr. Wylie, of New York City, recommends oil and glycerine, to which he adds a little atropia, and says that it controls the desire for stimulants.

Many patients are unable to empty their bladder after rectal and perineal operations, because of the spasmodic contraction of the sphincter vesicea muscle. This is partly due to the fact that they are lying down, and could they be allowed to assume some other position they would have no trouble whatever in this respect. This may be avoided to a great extent by having them abstain from fluids as far as possible, for twenty-four hours before the operation, directing them to empty their bladder the last thing before going to the operating room, and not try again for several hours after being returned to their room. If they try and fail, the catheter will have to be used for several days, while if they succeed the first time, it will not have to be used at all. The only objection to this is that after operations, patients often suffer from thirst. This may be prevented by allowing them to hold small pieces of ice in their mouth.

Another factor that sometimes works disaster is severe pain, with restlessness. I believe it is better to give sufficient morphine to control pain rather than to allow the nervous system to suffer the shock that it sometimes does. Of course there may be reasons for not giving it in certain cases, but often it is withheld because of fanciful rather than practical reasons.

I believe that many patients die because of the giving of stimulants. I can scarcely think of any symptom or condition following an abdominal or pelvic operation that would require the use of whisky, and I have long since ceased using it. If the patient seems likely to die, whisky will not save him, and other things such as strychnine, nitro-glycerine, etc., had better be used, as indications arise that seem to call for them. For general weakness, so often following operations, unless there is some special reason for not doing so, plenty of good nourishing food should be given. No stimulant can be made to take the place of milk, eggs, beef, and other foods that go to build up the broken-down constitution, and are permanent in their action. These are vastly superior to stimulants that have but temporary action, or, in many cases, none at all.

Probably the most important factor of all that may mar the success of a well performed operation is syphilis. There is scarcely an operation that the surgeon is called upon to do that this dread malady may not influence, either locally or through its constitutional effects, rendering the best result impossible, or in some instances causing the death of the patient. This is especially true in abdominal and pelvic work, as the abdomen has to be opened, and the peritoneal cavity entered, causing much greater shock than operations upon the extremities. Like the great white plague, syphilis is everywhere. It has no limitations as to age, sex or social conditions. But unlike tuberculosis it exists in places where least

expected, and casts its blighting shadow where it is not supposed to exist. Many patients have been operated upon with failure to get good results who had better have been put through a course of anti-syphilitic treatment.

Dr. Marchlow (*Deutsche Medizinal-Zeitung*) says that "within the last three years he has operated on two hundred syphilitic individuals, mostly women, and has observed that in these patients there is a certain diathesis which exerts an unfavorable influence upon the ultimate result of the operation. The diathesis consists especially in changes in the vascular system, morphological changes in the quality of the blood, and specific changes in the skin itself. These changes naturally play an important part in the process of the cure. The syphilitic diathesis lacks uniformity in the various organs and tissues, and is more marked in the gummatous stage. In operating on syphilitic individuals, hemorrhage of the tissues, namely in the gummatous stage, occurs very easily; even in extraction of teeth hemorrhage may occur.

"In certain instances pigmented infiltration of the edges of the wound is observed so that the latter are elevated above the edges of the skin surface. Primary intention, even with the most scrupulous care frequently fails, and even the healing of the granulations is often slow and weak. The granulations are scarce, mostly in the stage of fatty degeneration, occasionally large, edematous and colorless. The wound gives off a profuse stinking secretion, and its edges become atrophic. Elastic bandages or washing with carbolic acid easily lead to necrosis in the region of the wound, whereas the local application of warmth exerts a favorable influence upon it. Plastic operations are often without result in syphilitics. This syphilitic diathesis is very mild at times, not at all marked in persons who have a mild form of the disease, or in those who have passed many years before, as well as in individuals who have been subjected to an energetic specific treatment. It must be accepted as a rule, however, to subject all syphilitics to a line of treatment before an operation is undertaken."

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[Written for the MEDICAL BRIEF.]

Heart Lesions From a Purely Clinical Standpoint.

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In the consideration of the heart as a factor in all diseases of other organs, we are often led to regard it reflexly, when as a matter of fact its liabilitiy to derangement *per se*, is a fruitful source of diseases in other organs. An understanding of the complex nature of the function of the heart means an understanding of the close relationship between that organ and the nervous system. The elements leading up to a correct diagnosis of heart diseases must, as a matter of fact, embrace a very thorough knowledge of the nervous temperament of the individual.

In examining for heart lesions, and especially is this true in our eleemosynary institutions, we find that the want of proper nutrition to the great nerve trunks will so often produce valvular adventitious sounds, that we are led to think of the heart as diseased, when its condition is only due to an excitation caused by the irritability of the nervous centers. In cases of neurasthenia especially is this noticeable.

In females especially, usually at the beginning of the catamenia, we have observed absolutely valvular obstructive sounds, that we are wont to regard as permanent lesions, but experience teaches us that in the large majority of cases we have observed that the proper attention and respect for the circulation is always a most pertinent point in diagnosis. In obstruction, and particularly capillary, with the knowledge we have of the minute anatomy of the capillaries with their exceedingly thin walls, and the osmotic power demonstrated, it is easy for us to arrive at a conclusion that the reflexation of this irritability, or a want of proper tone in the sympathetic department will refer directly to the cardiac ganglia, and cause not alone accentuated

apex beat, but will cause absolute auscultatory evidence of disturbance at the valves.

It is, therefore, an important point for the general practitioner to bear in mind the fact that in a patient subject to unrest with regard to all disturbances, either cardiac or pulmonary, care must be exercised in making a diagnosis.

A variety of causes may contribute to the disturbances in the cardiac department, and it is difficult for us to assume that these conditions are of such a nature as to surround the patient with a chimera of the dreadful condition of this organ, when frequently a proper attention to the nourishment of the whole nervous system may maintain not alone an equilibrium in circulation, but permit proper capillary osmosis to overcome in a very short space of time the tendency to grave disease.

A case in question: About two months ago I was called to see a little boy, nine years old, with all the evidences of mitral insufficiency. A careful diagnosis is simply added to the impression that it was an irreparable lesion, but after observing the case closely, and calling in the aid of two different colleagues, who sustained me in my diagnosis, I was led to pursue my investigations still further, and in process of time to find that by following the course I had outlined (which was nourishment to the nervous centers) and improvement in the gastric department, and digestion stimulated, that I noticed a very material decrease in the adventitious sounds of the mitral valve. In the course of eight weeks my patient was comparatively well. There was at times a trifling sound, but I found that, on examination on first entering, this sound was quite noticeable, but in the course of twenty or thirty minutes there was an absolute subsidence of this evidence.

These conditions can not be investigated too closely, and I have come to the conclusion that not less than fifty per cent of our cases of valvular disease are simply due to such a state of affairs in the sympathetic department of the nerves characterized by something in the digestive department, that would lead us to make a wrong diagnosis. In all cases of this kind the physician stands ready and willing to be the target for the diverse criticism of his colleagues, yet it is better that he should carefully diagnose a condition before pronouncing an absolute opinion than condemn his patient to much suffering and himself to ridicule by over-anxiety to decide the exact nature of the condition.

A few moments' reflection upon the part of the investigator will convince him that with the wonderful facilities that are afforded by the circulation for the transmission of sounds that are developed from nervous irritability reflecting upon the arterioles and capillaries would place him upon his guard with reference to diseases of the heart. Unfortunately at the present time we find a tendency on the part of the consultant to agree absolutely with the physician in charge of the case, confirming an original diagnosis without making proper investigation. This is not fair to the general practitioner nor to the interests of the patient.

2008 Park Avenue.

[Written for the MEDICAL BRIEF.]

The Menopause.

BY THOMAS OPIE, M. D.,

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The term menopause means the cessation of menstrual function. It is the close of the fruitful period in woman. The arrest of the monthly discharge of blood forms but a single incident in the chain of events which occur in women who reach and pass the limit of the child-bearing period.

The substitutes for the term menopause are still more ambiguous, for example, "the change of life," "the critical period," or "times," "the climacteric."

It is closely related to the subject of menstruation, which may be defined as a function common to females of the human

species during that portion of life in which fruitfulness is a characteristic. It occurs with relative regularity each lunar month, and lasts the greater part of a week.

Its chief objective is a discharge of blood from the uterine canal, with which epithelium and glandular secretions from the uterus and vagina are mingled. With the discharge are frequently associated various phenomena appertaining to the vascular and nervous systems.

From time immemorial the importance of the menstrual function in women has been a recognized fact among observers. Its significance has been differently interpreted in different ages, and different conditions of intellectual development. Among the crude, the barbarous and superstitious, the solution of such a problem has not been universally satisfactory. Even among the highly-developed nations, for example, the Greeks, the interpretation could not be expected to conform to facts, because of their imperfect knowledge of physiology and anatomy. There was then but little, if any, knowledge of pathology and menstruation, and its aberrations must necessarily have received an entirely different interpretation from that which is given it in modern times. Paracelsus believed that the menstrual blood was the greatest of poisons, and with it the devil produced spiders in the air; also that fleas, beetles, caterpillars, and other insects were generated by it. Democrites, in his book of Antipathy, declares that all those caterpillars, and other insects which destroy a garden, fall and die if a woman with her menses upon her walks three times around each quarter of the garden barefoot and her hair loose. The Egyptians, who investigated so many matters concerning the human body, realized that menstruation was an important function. This is shown in the books of Moses, much of the information in which was derived from Egyptian sources, and in which a menstruating woman was declared ceremonially unclean, and coitus with her was forbidden.

While the ancients recognized the importance of menstruation, it was not so as to the menopause. By some of their teachers, it was passed over as occult and inexplicable, and in general it failed to receive that broad and philosophic treatment with which so many questions were discussed by the ancients. The Humoral Pathologists (who held to the doctrine that all diseases were due to the disordered condition of the fluids of the system), believed the humors, or juices, ascended like gases, and that they often settled in the brain and produced great disorder, which required abstraction of blood from the head, arm, foot, or other part. In the cessation of the menses, either temporarily or permanently, they say there is the possibility of serious consequences, and they are probably responsible for much of the foreboding of evil which is associated with the menopause in the minds of the laity.

It is stated by Hoffman, a humoral pathologist, that if venesection is omitted when the menses cease, violent cardialgias will result, accompanied with intense heat and pain about the precordia, the back and scapulæ, especially in the night time. Others will suffer with intolerable heat, pain in the joints, and erysipelatous fevers, while others will be affected by nephritic disorders, accompanied with pain in the loins, and terminating in calculous concretions. Furthermore, he says, some women, after their sixtieth year, have discharges of bloody urine, or are seized with an immoderate discharge of their menses, which at last terminates in a hectic. Hippocrates, in his work on Diseases of Women, says: "We learn from experience that exulcerations, violent, and even scirrhous tumors of the uterus are sometimes produced by cessation of the menses. Neither do the external parts of the body escape the fatal consequences of such suppression, since we know from experience that by this means they are frequently affected with the itch, the elephantiasis, boils, erysipelatous disorders, or scirrhous tumors."

In this crude material there is the shadow of very important truths. The modern literature of the subject is, of course, expurgated of that sensational character shown by the ancients. In the first half of the last century a number of papers and volumes appeared, chiefly by French authors. In 1861, Gardanne wrote a book on the menopause, the title of which was, "Advice to Women During the Criti-

cal Period." Tilt's work, entitled, "The Change of Life," was for many years the only one available for readers of the English language. It contains a vast amount of information and extensive statistics, but it is defective, because at the time it was published there were not in existence important data we have now, relating to the menopause, especially when artificially produced by the surgeon.

Kisch and Bosner have each written excellent works upon the menopause in German, and a translation of the latter has been published in this country. The recent developments in pelvic and abdominal surgery have given new importance to the subject. The study of the menopause, and its phenomena, has been invested with new interest, and practically placed on a new foundation. The menstrual period has its analogue in many of the lower animals; it does not recur, however, with the same frequency, or regularity, as with women, but it is manifested by a congestion of the genital organs, a disturbance of the nervous system, and an impulse which has a very manifest relation to fruit-bearing, or reproduction. It has been repeatedly observed that in apes and monkeys, in which the uterus resembles that of women, and also in those animals in which the uterus is hollow, as in asses, mares, ewes, sows, bitches, and cats, if coitus and conception do not take place, these conditions of disturbance disappear, to return again after a longer or shorter period.

There is no analogue of the menopause among the lower animals. The menopause is least likely to excite disturbance among savage and degraded females, who stand nearest to the beasts of the field, and among those who are accustomed to the vicissitudes of outdoor life and manual labor. Among the tenderly reared women of civilized life, and those who have had an undue share of ills and stings, it is a matter of great significance, and is often associated with a general breaking up of the vital forces of the individual.

The menopause should be a normal function, or experience. In a healthy and perfectly-constructed individual, the functions of the body are performed painlessly. With such an individual, there is as little consciousness of digestion, or of the existence of the stomach as an organ, as there is of things in general during natural sleep. The performance of menstruation should be accomplished with equal ease in women, and the period of its final cessation should be as uneventful as that of its beginning. That this is not the case, in many instances, is simply to say that there is not an organ or function of the body that does not show derangement, or disturbance, in one individual or another, indigestion, dysmenorrhea, disturbed menopause, and a thousand other ills, arising like the miasm from the marshes, according as the conditions favor. The abnormal arouses attention, not the normal, in the average mind, and the serious disturbances which have happened to some women as they passed through the menopause have led Tilt and others to insist on its essential seriousness and critical character. Influenced by such authority, and perhaps by personal observation to a very limited extent, the public at large look upon this experience with great apprehension, and women have been taught never to consider themselves quite safe until the menopause has entirely passed. Ancient teaching concerning the menopause is erroneous, in many respects, in the light of present knowledge, and the sooner it is done away with the better it will be for humanity.

We may define the menopause, therefore, as the condition which exists, and the collective phenomena which appear in connection with the cessation of menstruation. This cessation takes place gradually, in most cases, the intervals between the menses lengthening and finally failing altogether, after a period of from one to three or four years. During this time the phenomena are varied in character. With some women there is scarcely the consciousness that anything unusual is occurring, aside from the fact that the intermenstrual intervals are longer than usual. With others, the hemorrhages, if less frequent, are much more profuse. The nervous system may be unaffected, or there may be disturbance of the cerebro-spinal, and sympathetic systems. Vasomotor disturbances are extremely common, and mental alienations are by no means rare. In cases where there is pre-

disposition to the development of new growths, such growths may develop at this time. Atrophic changes take place in all the genital organs as the menopause progresses. The menopause may be as uneventful as any of the other necessary experiences to which female economy is subjected, but it is also susceptible of varying, as far as possible, in the opposite direction. There are exaggerated views as to the menopause as a critical time for good or evil. Tilt accepts the ancient view of the serious character of the menopause.

Suppose we compare the menopause with any of the ordinary functions of the body—with digestion, for example. Errors of digestion are certainly as common and significant as anything that can be associated with the menopause, and yet we cannot consider digestion as critical in any sense, nor its aberrations as necessary adjuncts of the function.

Kisch's statistics, published in his book, which came out in 1874, gives an analysis of five hundred cases. The following conditions were noted: Metrorrhagia, two hundred and eighty-six; chronic metritis, seventy-nine; leucorrhea, three hundred and twenty-seven; vaginismus, twelve; prolapsus uteri, sixty-five; ante- or retro-tumor mammæ, eight; pruritus vaginæ and flexions, fifty-two; carcinoma vulvæ, forty-six; fibroma uteri, three.

It may be observed that three out of every five (two hundred and eighty-six out of five hundred) had uterine hemorrhage, but whether it was sufficient to be regarded as serious is not apparent. The fact is now clear to every observant modern physician of our day that unless women have pelvic or abdominal tumors, or some other legitimate cause for hemorrhage, the number who suffer with this most loudly-heralded bugbear of the menopause is insignificant. It may be confidently asserted that the majority of women who reach old age have never consulted a physician in regard to the menopause, and that there is nothing of value in such tables of statistics. A tabulated list, to be of value, should contain only such cases as required the physician's aid. Tilt's statistics embrace five hundred cases, observed in the higher social classes in England during twenty-five years of practice. In addition to minor complaints, as sick headache, biliousness, diarrhea, deafness, neuralgia, erysipelas, etc., he tabulated the following: Insanity, sixteen; carcinoma uteri, five; paraplegia, six; heart disease, one; apoplexy and hemiplegia, six; carcinoma mammæ, one; fibroma uteri, four. For malignant disease a fraction over one per cent is given by Tilt, the ardent advocate of the serious character of the menopause. The United States Census Statistics, for 1880, reported forty-eight thousand nine hundred and fifty deaths of women between forty and fifty, out of a total of four million five hundred and fifty-eight thousand two hundred and twenty-six of the stated age. Of this number one thousand seven hundred and seventy-one died of cancer, and about one-fourth of them were cancer of the genital organs. This shows that less than one per cent of the women who died between the ages of forty and fifty from 1870 to 1880, were the result of cancer. These statistics are not scientifically correct, owing to errors in diagnosis, while on the other hand, it might be admitted, a considerable number of these cases are never reported. However, the national report and the statistics from other sources agree upon about one per cent, which negatives the conclusion that the menopause is a period to be greatly dreaded upon account of malignancy. Even Tilt has modified his statement, notwithstanding his advocacy that the phenomena of the menopause indicate gravity, by granting that the term critical does not necessarily mean fatal. More extensive knowledge concerning the menopause than our predecessors had leads us to fear it less than they did. We are called upon to explain why serious conditions may and sometimes do develop in the genital organs at that time. When the period of fruitfulness has ended, the activities of the tissues have reached their culmination, the secreting power of the glandular organs begins to diminish, the epithelium becomes less sensitive and less susceptible to infectious influences, atrophy and degeneration take the place of active building processes. The presence of an irritant, scar-tissue, for example, or that vague condition of susceptibility which we call a diathesis, in which

there is lack of cell activity and vitality in resisting the increase of irritation. The organ attacked goes down before it, the result being heteroplasia or malignant new growth. This explanation, if unsatisfactory, is as much so as anything which has thus far been suggested. The menopause is not responsible for degenerative changes. The fact that malignant disease develops at the time of the menopause does not prove that it is responsible. It merely shows that the tissues are then favorable for such a development in the individual so affected. Hence we should abandon the idea that the menopause is, of necessity, the time for such unfavorable processes. Menopause signifies completion of the fruitful period. Foliage assumes its most brilliant colors, then withers and falls. The hair of the woman whitens at the menopause, her figure becomes rotund, but, in due course of time, withering, and wrinkles follow. In the reproductive organs the advent of the menopause means the beginning of senility, and that means atrophy and degeneration of tissue, though not necessarily the institution of morbid processes. The menopause is conservative, the malignant disease is destructive. The former consists essentially in utilizing to the utmost impaired and worn-out tissue and processes. With malignant disease, on the contrary, a tissue is built up, or infiltrated only to break down and be destroyed, the destructive process continuing and spreading until it annihilates its pitiable victim. When such disease follows the menopause, the mistake has not infrequently been made of attributing the co-incident hemorrhage to an incomplete menopause, or recurrent menstruation. Such mistakes are less excusable than they were. Warning should be sounded before malignant disease becomes too extensive, before the disease has reached the irremediable stage, when radical surgical procedures are unavailing or impossible. Fibroid tumors of the uterus, by a degeneration of the mucous membrane, cause profuse hemorrhage during menopause, and thus simulate malignancy. Careful attention as to differential diagnosis is important here. Coincidently with the menopause, cystic tumors of the ovary occur, the active developmental period of which may continue, even to the most advanced age.

Changes of an atrophic character in solid and fibro-cystic tumors of the genital organs do not occur as often, nor are they as marked, during the menopause as was formerly the case. We know that their development may continue uninterruptedly, in spite of the menopause; that they enlarge after the menopause has terminated, and that they may even undergo malignant degeneration after that period has passed. The anatomical changes which may be caused by inflammatory processes of the genital organs during the menopause are the same that occur independently of this period. They are either of traumatic or infectious origin, and not of frequent occurrence. The tissues at this period are not as susceptible to inflammatory influences as in early life. To remove the generative organs completely during the menopause will accelerate its termination.

If the mammary glands alone are removed—destroyed—the menopause is not in the least influenced. Gross and Winiwarter, in their analysis of six hundred and forty-two cases of mammary cancer, found four hundred and ninety-six in which it occurred after the age of forty. There is nothing in their writings, nor in those of Birkett, Lebert, Scanzoni, Velpeau, or Virchow, to show that the disease or destruction of these glands influences the menopause. The factors which influence the menopause are:

(1) Age. (2) Disease and traumatism, including the influence of undeveloped and badly nourished organs. (3) Climate, including altitude, and all atmospheric conditions. (4) Heredity, including family, national, or race peculiarities. (5) Temperament, habits, occupations, and social surroundings. (6) Accidental influences, fear, misfortune, grief, etc.

Treatment.—Carefulness and watchfulness are requisites. The old method was wrong. It consisted in ignorant inactivity. "Eternal vigilance is the price of liberty." We may say in such a crisis it is the best of purposes, since it makes us ever ready for any mishap which may occur during the menopause. Our experience is that the majority of women will go through their menopause without any-

thing being done for them by the physician. The aid of the doctor is rarely needed for women who live out of doors, or who are hard workers, or who are barbarous women. The treatment required consists mainly in meeting symptoms. In the nervous, highly-organized, sensitive women, who spend most of their lives in the house, those who have been harassed with social and domestic cares, the fashionable and dissipated, those who have had pelvic troubles, more or less all their lives, those who have suffered poverty and disappointment, the menopause will call for special attention, and it may be well to remember we have no special disease to treat, only symptoms.

Vasomotor phenomena are the most frequent; such as flashes of heat, blushes, profuse perspiration, and discharge of urine, frequently occur in women who are in other respects in perfect health. Many such women scorn medical treatment and advice; then again, who are annoyed, seek it. Advice as to their diet, bowels: Saline and other aperients are most useful. Anodynes and hypnotics are to be deprecated and renounced. Encourage free elimination by the skin, exercise, friction, baths, 60° to 70° F. The seashore, the mountains and travel will divert, sustain and lengthen life at such a period. Some women are disturbed by congestion of the genital organs, and are distressed by an excess of sexual excitement as the result. Sometimes this is a source of great mortification to very worthy women. Relief is afforded by scarification or leeches, and vaginal douches at a temperature of 70° or 75° F. Profuse hemorrhages are abnormal, they are not physiological, but the evidence of disease. These are hemorrhages, not recurrences or renewals of menstruation; they are in advanced life usually indications of malignant disease. The atrophy and degenerative processes weaken the uterine capillaries and their supporting connective tissue, and cause hemorrhages during the menopause. They are apt to be profuse. The treatment is surgical.

It is curettage and gauze packing of the uterus. Should cancer develop during the menopause, vaginal hysterectomy is demanded through the vagina. Ergot, hydrastis, antipyrine, iron, iodin, alum, etc., are advised. I am frank to say that such treatment, except so far as it may secure quiet and confidence, is abominable. The works on general medicine are to be consulted as to treatment. Those who are not sick, but think they are, must be disillusioned by gentleness, but firmness. They must be assured that the menopause is a natural process, that the majority of women go through it unharmed.

Those who are sick must be treated on rational principles, not by superstition or tradition. Surgical conditions should be recognized promptly and promptly treated. Those who need drugs should receive remedies that are tried and reliable, and not the nostrums nor cureall s of the quacks.

1031 Cathedral Street.

[Written for the MEDICAL BRIEF.]

Nux Vomica Versus Strychnine.

BY PITTS EDWIN HOWES, M. D.,
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We are living in a day of short cuts. Time is money. Men are trying in all ways to save time. This is true of the medical profession as well as of any other.

The tablet craze, which has swept through the medical world, was the outcome of this desire. The active principles are substituted, many times, for the entire drug, because, *per se*, the medicinal value must lie in this part. This may obtain with some, but, to the thinking physician, this proposition is extremely fallacious.

Examine chemically the dose of any of the fluid remedies, and you will find that the proportion of the active principle is very much smaller than the usually accepted dose of that principle, when administered alone. In the doses of nux vomica, usually prescribed, the amount of strychnine is decidedly less than that recommended by most authorities on the use of this drug. Doubtless this may be one of the reasons why there is such a difference in the action of the two agents.

It is an easy matter to separate nux vomica into its component parts. We may determine just how each of those parts act on the human economy, and what effect they will produce when given in different sized doses. But to say that the combined drug will give the result

which is brought about by the addition of those produced by its separated portions, is stating a fact which can not be demonstrated.

There are many things in Nature's laboratory which man has not comprehended, and, among them, none stands out so prominent as his failure to understand the manner in which she combines the materials in her workshop for the benefit of mankind.

Without doubt strychnine acts, principally and primarily, upon the involuntary muscular fibers, that is, in those doses which are deemed medicinal. When the size of the dose has been increased beyond the degree of toleration, and so becomes poisonous, the voluntary muscular fibers are also included in its field of action, although they can not now be controlled by the will. This should teach us that the field of action of strychnine, as a remedial agent, is very limited.

There is no question but that strychnine is a powerful heart stimulant, and when given in proper doses, and at proper times, will aid very much in overcoming some hard places on your patient's road to recovery.

The heart is weak and flagging, because the load which it is obliged to carry is more than it has power to perform. The judicious use of strychnine, in such cases, will enable the over-tired heart to successfully overcome the obstacle, but it should not be continued after that result has been accomplished.

Strychnine may be compared to the whip with which the careful driver urges his horses. They need a little extra exertion to help them over a hill more steep than usual. The whip gives the necessary stimulation, and they are soon the victors. But the driver does not continue the application of the lash. To do so would be folly, and would be condemned by all observers. So in the administration of strychnine. It needs to be watched with much carefulness. If we do not do so, we are apt to work more harm than good in the end.

Strychnine, as a separate agent, is very insoluble, and is taken up by the system with considerable slowness; hence, if the doses are given very closely together, you are apt to get a cumulative effect and poison your patient before you are aware of the fact. It should never be given in any solution, the ingredients of which would be likely to precipitate your strychnine. For, if this should occur, your patient is likely to get an excessive amount of the drug, in the last dose, and a fatality happen, which carefulness could have avoided.

The effect produced by the whole drug is very different from that which is caused by its alkaloid.

Nux vomica, when administered in medicinal doses, exerts a very gratifying effect upon the entire digestive tract, and, from this very fact it holds a prominent place in the armamentarium of the successful practitioner.

By means of the sympathetic nerve the stomach and intestinal tract are connected with the cerebro-spinal system, hence, many times nux vomica will prove curative in conditions which are reflex in their nature.

Again, the size of the dose of nux vomica plays an important part according as you expect to relieve a direct or a reflex wrong. On general principles, the size of the dose must be very much smaller in those troubles which are reflex than in those which are direct, usually from one-fourth to one-tenth of the ordinary dose.

Nux vomica, unlike strychnine, can be given for a long time with much benefit, provided you do not forget to substitute one of the other bitter tonics, like quassia or salicin, occasionally for a few days, and then return to your first agent. This renders nux vomica of much value in chronic cases.

Another rule which it is well to remember when prescribing nux is that acute cases need the remedy more frequently than those of a chronic form. In the former, I always use it at least once an hour, sometimes more often, while in the latter I never direct it to be taken oftener than once in three hours, and frequently only three times a day.

When prescribing nux vomica, be sure that you have a reliable preparation, and always make use of the same quality. Many times inferior preparations produce results which are wrongfully blamed upon the agent itself.

[Written for the MEDICAL BRIEF.]

Report of a Case of Pneumonia.

BY C. E. WITT, M. D.,

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Mrs. B., aged thirty-three, multipara, presented herself for treatment on December 15th. She was found on examination to be suffering from acute pneumonia of the middle lobe of the right lung. The patient's previous history was good, although of extremely slight physique, never weighing more than one hundred pounds; her general health had been fair up to time of illness. The two prominent features of this case were the acute pain and high temperature, the latter ranging from 103½° to 105° F. The severity of the pain indicated an inflammation of the pleura. As part of my routine treatment, the patient was wrapped in a flannel jacket, made from two thicknesses of flannel, and padded with cotton. This was followed by the application of the ice pack, made by filling a rubber bag with crushed ice, which was then placed, after wrapping a single towel around it, directly on the chest.

Within two hours after the application of the ice pack the temperature had fallen 2° F., and the pain was almost entirely relieved. The pulse rate which had reached one hundred and forty, was gradually reduced by means of small doses of digitalis. On the seventh day, as resolution had set in, she developed pneumonia in the left lung. The same treatment was continued, and recovery was rapid and uneventful.

The only remarkable features of this case are the high temperature, pulse rate, acute pain, and the fact that such a frail little patient should recover so promptly from a most severe attack of double lobar pneumonia.

Many years of experience in the treatment of pneumonia have led me to believe that there are no more useful agents in the management of this disease than the flannel jacket and the ice pack. Of course, we occasionally meet with highly nervous patients who can not endure the cold application, and in such cases we must substitute the hot pack, but this rarely occurs.

When the pulse rate reaches one hundred and twenty, I prescribe digitalis pure, or fluid extract in preference to any of its alkaloids, but never give it for more than four days without an intermission, on account of its cumulative qualities, when I substitute strophanthus as a heart stimulant. Digitalis is absorbed rather quickly, and eliminated slowly.

When it is indicated, I prescribe brandy. Strychnine is also one of the best stimulants at our command. Nourishment is given in such quantities as the patient can digest and assimilate. I give the strychnine, however, only in the second and third stages of the disease, as it is one of the best respiratory stimulants as well as a cardiac tonic.

In the third stage of pneumonia, to hasten resolution and cause expectoration to be easier and freer, I give carbonate of ammonia in ten-grain doses, repeated every two or three hours. Carbonate of ammonia is likewise a respiratory and cardiac stimulant, but as its effects are very fleeting, the doses must be given at short intervals.

1918 Gaines Street.

[Written for the MEDICAL BRIEF.]

Rectal Examination in Children.

BY J. A. BURNETT, M. D.,

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In making a diagnosis of abdominal conditions of children a rectal examination is of great value. When making the examination the child should be placed upon its back with the thighs flexed upon the abdomen. The first finger of the right hand should be carefully inserted into the rectum and the left hand placed upon the child's abdomen and the conditions of the middle and right side of the abdomen can be ascertained, and then the child can be placed upon its right side without removing the finger from the rectum, and the left side examined. The pelvic organs of young girls can be thoroughly examined in this way, and occasionally they are found to be diseased.

[Written for the MEDICAL BRIEF.]

Predetermination, Revelation and Treatment of Disease by Blood Diagnosis.

BY ROBERT LINCOLN WATKINS, M. D.,

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Sanitation, a word derived from the Latin *sanitas*, meaning health, whole, sane, implies much more than is generally supposed.

It is erroneously applied to public measures, exclusively; negatively, for the prevention of disease in the community. But it should be applied, positively, to the dissemination of health; and since the community is formed of individuals, sanitation should be applied specifically to the whole, sane, healthy state of the individual.

Sanitation, therefore, has no negative meaning; it has no reference to the prevention or cure of disease, nor is such a system necessary. A positive sanitary system would include immunity from disease by inference. It should be far more natural, and certainly more pleasant, to keep well than to be ill.

Diagnosis.—Should a disarrangement of this ideal state occur, the first question is "Why?" When a person becomes ill, his first thought is, "What is the matter?" The first question the puzzled physician asks is, "How am I going to find out?" Aye, there's the rub—a deep-dyed doubt of a dubious diagnosis.

Mother Nature has concealed the organs wherein may exist the irritating cause, making the diagnosis and, in consequence, the cure, largely experimental. But there is one organ which can always be obtained and examined; namely, the blood. Blood is an organ which penetrates every nook and corner of the being. It receives and carries nourishment and detritus to and from all other organs. It reflects their conditions, often before the organs have made the patient aware of their existence through pain or other symptoms.

Physicians have long known that an analysis of the urine will disclose Bright's disease of the kidneys, years before symptoms have manifested themselves in any other way, but it is only of late years that a few physicians have been persuaded that the blood is the guide which determines the presence, location, and, consequently, the means of cure. Every person should have his blood examined as often as his teeth, and this can not be too strongly urged.

There are two methods: the first, or old-time way, is by dry or stained blood; the second, or newer fashion, the fresh or living blood examination. The latter is by far the more simple, the more practical, and the more important.

A drop of blood is taken from the wrist, placed on a glass slide, and examined through the microscope.

In private practice it is my custom to take a photograph of each specimen, which furnishes a permanent record of the patient's condition on that date. My camera is permanently fixed in the left side of my office desk, an electric sterilizer on the right, with the microscope in the center. For outside practice I use a portable apparatus.

Treatment.—Having secured the true diagnosis, the next consideration would be the treatment.

When the blood becomes diseased, it bravely uses its crippled processes to cope with the difficulty. My treatment, based on Nature's laws, aims simply to aid the blood, by specially adapting itself to each individual case, thus making the cure rapid and permanent.

Such a condition is within the reach of every human being, so that, instead of spending large sums to relieve pain, he would better, like the Chinese, pay doctors only when in health.

CASES.

Below are given a few illustrations of great variety:

Case 1. Paresis.—On August 1, 1903, the dentist of an European ruler, while ill in New York, was sent to me by a prominent physician for a blood examination. The diagnosis was incipient paresis. This man committed suicide in

Europe, January 11, 1905, which would confirm the diagnosis.

Case 2. Tumor.—Two months ago Mrs. R. was recommended by Mrs. B. (a relative, who had been cured by the writer, ten years previous, of a uterine fibroid tumor, accompanied by excessive hemorrhages). Mrs. R.'s weight excessive, two hundred and fifty-six pounds. She has had a fibroid tumor of the uterus, with excessive hemorrhages, and the left ovary affected. Under special treatment the pain has already disappeared, menstruation is less profuse, and her weight reduced ten pounds.

Case 3. Epilepsy.—Mr. T., nineteen years old, has suffered all his life with corea—St. Vitus' dance and epileptic fits. He has attended school in Scranton, Pa., for the last two years. He was examined by me two months ago, and advised to return later for further observation and treatment. This he did two weeks ago, complaining of mental dullness, with a pain in the back of the head. He was morose, sullen and irritable. His blood was of poor quality and thick; the microcytes were not as numerous as usual in such cases, being probably due to the fact that the lesion was in the brain, technically called central. This would insure a favorable prognosis. My advice to his father was to leave him with me a week, as I was fully convinced that within that time the principal symptoms would disappear. The father agreed, but remarked as he was leaving, "Are you aware that the boy has had this complaint all his life?"

The young man was placed under the instructed orders of an intelligent nurse. He was installed in a large airy room, and subjected to various forms of treatment, which included unique exercises for producing activity of the brain cells, the main object being to make the boy happy and contented, and it succeeded. In three days the dullness had disappeared, and his glassy eyes had changed to sparkling ones, betokening rare intelligence. Within the week he was sent home. His father subsequently wrote, "I am glad to say that I notice a decided change in my son's appearance. I think your treatment has done him much good."

(To be continued.)

[Written for the MEDICAL BRIEF.]

A Brief History of Modern Surgery.

BY E. J. KEMPF, M. D.,
Jasper, Ind.

(Continued from page 261.)

Dental Surgery.—Dentistry is probably the most prominent and the most advanced of the departments of regional surgery, and is almost entirely a growth of the nineteenth century, and a marvelous growth it is. Allow us to examine the subject in a very brief way.

The Greeks and the Romans understood a few principles of dental science, and were able to relieve pain and to make false teeth. Until our present time dentistry consisted in pulling teeth in a rude and insolent manner, and in plugging up holes in teeth in an exceedingly rudimentary way.

The American dentist has led the way in the perfection of his art, and he is justly celebrated all over the world. The first native dentist was supposed to have been John Greenwood, who began to practice in 1788, and in 1892, thirteen years ago, there were eighteen thousand dentists in the United States.

From 1800 to 1892 there were published two hundred volumes devoted to dentistry alone; over five hundred dental instruments were patented at Washington; dental journals are without number, but with great influence. Dental colleges flourish, and nearly every city with any pretension to metropolitan honors has one or two dental schools. In fact, dentistry is one of our most advanced specialties.

Physicians, especially those practicing in the country, are frequently called upon to extract teeth. Also, sometimes the operation of teeth-extraction becomes necessary during the course of a major operation on either jaw, for the removal of a tumor, or the repair of an injury. Dentistry may also have to be called upon for aid by the general surgeon, in severe cases of fracture of either jaw, either for repair after the healing, or in the fixing the fractured bone by means of wires and splints. In cases of cleft palate, the aid of the dentist may become

necessary to close the opening in the palate by means of a plate.

From time immemorial teeth have been extracted: among ancients by knocking them out, and, later, by means of the key. One mode was as barbarous as the other. At the present time, teeth are extracted by means of the forceps, which are made so as to suit any and all teeth. A physician's set of four instruments will answer all his needs, and with a little practice, and with the aid of the anatomy which he is supposed to possess, the physician can extract all the decayed teeth in his neighborhood.

Ophthalmology.—The improvements in the various operations in the different parts of the body have become so many and so important, especially since the discovery of anesthesia, which we have already described in the way of its history, and since the use of antiseptics, that surgical practice and study have within the course of the nineteenth century been divided up into different departments, and the tendency of the age seems to follow this plan entirely. The various departments are called specialties, named according to the region of the body over which the specialist claims guardianship in health and disease. If the student of medicine remembers, in the discussion of Egyptian medicine, we noticed that specialism in medicine was the custom of the Egyptians even by law. Thus we see that specialism in medicine is but progressing in a circle, and we are about to return to a very ancient rule of practicing the art of medicine.

At the present time we have eye doctors, or ophthalmologists, with a minor branch calling themselves opticians. The eye doctors have their own medical journals, their own medical societies, and even their own medical schools, generally post-graduate schools, and in connection therewith a hospital and dispensary.

The eye doctors are generally to be found in practice in the larger cities. Their art has become so important a branch of the science of medicine that its practice demands a special devotion, and the one who follows it has no time for anything else. A fact of which the specialist seems to be proud, and to boast of, for several times have I heard a specialist make the remark, not only in private conversation, but also publicly, when addressing medical societies, that he knew absolutely nothing about any other branch of medicine except his own, always, however, trying to leave the impression that he knew all about his own. Any man, whether a specialist or not, making such an assertion in good faith, should return to some first-class medical college, and learn what he does not know, for no one man can practice one particular branch of medicine in an intelligent manner who is not an all-round good physician.

The work of the eye doctor consists in the treatment of the diseases of the eye, both surgical and medical, in the performing of the necessary operations on the eye, and in giving directions to his assistant, the optician, for the fitting of proper glasses, after he has made the proper examination of the patient. For these various operations he needs a great number of special instruments, and appliances.

The discovery of the ophthalmoscope by Helmholtz, and its perfection by Ruete, Bruecke, Coccius, Zehnder, Loring, etc., was probably the beginning of ophthalmoscopy and ophthalmology. The ophthalmoscope is an instrument for diagnostic purposes, and has been aptly named the eye speculum.

Ophthalmology is that branch of medical science that treats of the eye, its structure, functions, and diseased conditions; the anatomy, physiology, pathology, and physics of the eye, and the medical and surgical diseases of the organ.

The first independent writer on diseases of the eye in the United States was Dr. Frick, who was born in 1793, in Maryland. Dr. Edward Delafield delivered a course of lectures on the diseases of the eye at the College of Physicians and Surgeons of New York in 1826, although he was professor of obstetrics at the time. The first man in the United States to make diseases of the eye an exclusive specialty was Dr. Williams (1822-1888), of Cincinnati, Ohio, who had a national reputation for skill and learning in ophthalmology.

Otology.—The eye doctor frequently also manages to learn another speciality

(also spelled specialty) or two, if he finds it necessary to practice in the smaller cities. Otolpgy, or diseases of the ear, is generally the one adopted by the eye doctor. Diseases of the eye, ear, nose, mouth throat, and larynx all have their special doctors, or they are treated by the same physician as a favorite combination of specialties. In fact, diseases of the ear, nose, and throat, are considered as one specialty by most physicians, on account of their close relationship as to the anatomy of the parts.

Otology is the science of the medical and surgical diseases of the ear, and their treatment. In order to treat the diseases of the ear successfully, the otologist makes a special study of the anatomy, physiology, and pathology of the ear; then he is drilled in the physical and functional examination of the ear, in order to be able to recognize the various diseases with which the ear is liable to be afflicted, so that they may be successfully treated.

Rhinology.—Rhinology is the name of the specialty covering the diseases of the anterior and posterior nares and the pharynx.

Laryngology is the name of the specialty covering the diseases of the mouth, throat and larynx.

The practice of otology, rhinology, and laryngology as specialties, as to history, may be dated to the year 1743, when M. Levret, a distinguished French physician, contrived a small reflecting mirror to aid in the detection and removal of polypoid growths of the nostrils, throat, ears, and other parts.

In 1804, Dr. Bozini invented an apparatus for the examining of the various canals of the body. In 1854, Signor Manuel Garcia first demonstrated a practical means by which the interior of the larynx might be studied. Czermak, of Pesth, who devised laryngeal mirrors of various sizes, adapted the concave reflecting head mirrors for use with artificial light, and thus created the art of laryngoscopy, which with little real change is known and practiced to-day.

That many if not most of the diseases of the eye, ear, nose, and throat now generally treated by the specialists, had been fairly well understood as far back as Celsus, is probably true; but it is only since the discovery of the newer anesthetics, and the perfection of the instruments both for diagnosis and for treatment, that these specialties have become worthy of the name of honor which they hold in the medical world.

Diseases of the Rectum and Anus.—This specialty, which may be claimed to be a surgical one, was formerly entirely in the hands of the quacks, but within the last twenty-five years has risen to the dignity and honor of a regular scientific specialty. This fact is due to the studies and to the labors of Esmarch, of Germany, the great general surgeon, Allingham and Smith, of England, Kelsey, Matthews, Gant, Bryant, Andrews, Cook, and others, of the United States. This specialty also includes diseases of the bowels in general, and all surgical operations in the neighborhood of the perineal region. The rectal specialist also treats all internal diseases to which diseases of the rectum and anus can be traced, such as syphilitic and tuberculous diseases.

Genito-Urinary Surgery.—The practice of genito-urinary surgery was known to the ancients, which we ascertain even from the Hippocratic oath, which mentions that doctors, who took the medical oath then in vogue, pledged themselves not to perform the operation for stone, but would leave that to those specially qualified to perform the operation by special knowledge and skill. Where there were others who specially treated diseases of the genito-urinary organs we may only surmise, but we may take it for granted that men who knew how to operate successfully also knew other things about the diseases with which they came into contact. So it may be said that the specialty of genito-urinary surgery is a very ancient one, and a very important one, too, because the sexual powers of man are necessary to the procreation, and the perpetuation of the human race.

To modern aseptic surgery must, however, be given the credit of putting the specialty of genito-urinary surgery on a scientific basis. This specialty comprises the medical and surgical treatment of diseases of the urethra, of the prostate, of the bladder, of the penis, of the scrotum, and the testes, and of the kidneys.

This specialty also includes the venereal diseases, gonorrhea, syphilis, chancroid, chancre, and the functional diseases of the genital organs, such as impotence, spermatorrhea.

The physicians to whom must be given the credit of making the specialty of genito-urinary surgery worthy of the name of a science are Ricord, of France, the Hunters, Otis, Van Buren, Keyes, White, and others.

Silas Durkee, M. D., of Boston, wrote what may be considered the first work on venereal diseases written by any American physician, but his teachings may be considered in the main obsolete.

Orthopedic Surgery.—The specialty to be sketched under the heading of orthopedics has been until in quite recent years, almost wholly in the hands of quacks, at least as a specialty. But this is no longer the case, and orthopedic surgery has become a very important specialty of the scientific and specially educated physician and surgeon. Under the term orthopædics (from the Greek, straight, and knowledge), we understand the subject of the deformities of the human body, and the methods of prevention and of cure, by surgical methods. Although many deformities can only receive the requisite treatment at special clinics, or at the hands of the specialist who has acquired the essential technical skill, it still holds true that the subject as well as all other of the specialties, should be the common property of the physician and surgeon in general.

As in every other branch of medicine, so in orthopedics was the growth gradual to the present standpoint, and marked advances have been made, such as the operations of tenotomy, of osteotomy, etc. The inception of orthopedics may be traced as far back as can the human deformities. Hippocrates, Galen, Pare, Severinus, Arcaeus, and others have left us considerable information on this subject. Fabricius Hildatus reports a severe contracture of the hand which he cured by means of suitable apparatus. In the year 1500, Glisson first resorted to suspension in orthopedics; in 1685, J. Minius first performed tenotomy in a case of caput obstipum. Andry (1741) first collected the observations of his predecessors, and gave the science the name it holds to-day. In 1780, A. Venal opened the first hospital for the treatment of deformities; in 1782 Lorenz first performed the operation of tenotomy on the tendo-achilles in a case of clubfoot. Delpech was the first surgeon who established orthopedics on a firm basis as a specialty. In 1803, Scarpa devised the since much modified clubfoot shoe. Strohmeyer, Heine, Dieffenbach, Langenbeck, must be mentioned as men who furthered the advance of orthopedics. Strohmeyer was the first to practice subcutaneous tenotomy, which before the advent of modern antiseptic surgery was, indeed, of great advantage.

George Friederick Louis Strohmeyer, born at Hanover, 1804, was the son of a physician, and graduated in medicine at Berlin in the year 1826. Induced by Delpech's work, "L'Orthomorphie," Strohmeyer founded an orthopedic institute, of which he was the chief until 1838. His first operation of tenotomy of the tendo-achilles he performed February 28, 1831, and Dieffenbach was induced to give the operation a trial by Little, an English surgeon, on whom Strohmeyer had performed the operation. In 1836 Strohmeyer wrote on the causes of spinal curvature, and in 1838 appeared his work on operative orthopedy. Strohmeyer divides with Esmarch the credit for developing the operation of resection in gunshot wounds of the joints. Strohmeyer also advised operative treatment for strabismus for the first time in the history of surgery, and illustrates the trend of Strohmeyer's mind, which was always to correct deformities occurring in the human body, no matter where. Strohmeyer was an imposing personage by his originality of manner, the independence of his opinion, and the richness of the genial, pointed, and striking remarks which decorate his style.

Sayre's name stands prominent as an orthopedist, as has already been mentioned. Louis Austen Sayre was born in New Jersey, in 1820; he graduated at Transylvania University in 1837; he studied medicine and graduated at the College of Physicians and Surgeons of New York in 1842, and he became probably the first professor of orthopedic surgery ever lecturing in the United States.

Sayre is the author of several papers on orthopedic or reparative surgery, and the inventor of the Sayre's plaster paris jacket for the treatment of caries of the vertebral bones, to prevent the serious deformities usually following caries of the spine. This jacket is applied with the aid of extension of the body by swinging the patient by means of a mast especially devised by Sayre. This extension apparatus is called Sayre's jury mast, which is also used as a gymnastic apparatus for the gymnastic exercising of patients suffering from Pott's disease, and in the treatment of locomotor ataxia by suspension.

Orthopedic surgeons are now to be found in the larger cities of the country, and special hospitals for the treatment of deformities of the human body are also to be met with. It is the tendency of the age to rather prevent the deformities of the human form than to cure them after they have been allowed to progress through ignorance and neglect.

Among the earliest methods of treating spinal disease is one known as succussion. This is mentioned by Hippocrates as a popular method in his day, and one which the great man condemned. Another ancient method of treating spinal disease was gibbosity, both methods depending for their efficacy on extension. Ambrose Pare used what may be considered the first splint intended to be worn for diseased spine, and described the corset in his book, 1650.

(To be continued.)

[Written for the MEDICAL BRIEF.]

Basic Facts Anent the Rheumatic Diathesis.

BY SAMUEL S. WALLIAN, A. M., M. D.,
New York.

Every well-defined disease has some distinctive pathognomic feature or symptom.

Applying this admitted law to a single ailment—one of the commonest—viz., rheumatism, this disease in all its varied manifestations is, by modern pathologists, directly and unerringly traced to the presence in the tissues and circulating fluids of non-neutralized acid products of proteid metabolism.

This is proved by various unmistakable evidences, chief of which may be mentioned, profuse and sour-smelling perspiration, the transformation of normally alkalin saliva to acid saliva, hyperacidity of the urine, and acid feces.

This condition is not present in any other disease.

It is now admitted that cell metabolism can not be accomplished except in the presence of normally alkalin blood and tissue fluids.

True, resultant acids, purins, xanthins, etc., are produced by all metabolic transformations, but in health these acids are promptly and continuously destroyed or neutralized by alkalin bases presented in food media, and by alkalin carbonates derived from vito-chemically decomposed vegetable acids, or acid-alkalin salts.

In diseased conditions the alkalies of the blood supply a reserve force which is at once invoked by Nature to counteract the acids being evolved. When the normal alkalinity of the blood, for any reason, has been diminished, this aid is wanting, and the blood cells themselves degenerate.

Whenever this basic, normal alkalinity of the blood is either reduced or neutralized by an excessive ingestion or formation of uric acid, the subject is at once on the verge of a rheumatic explosion; normal oxidation is interrupted, and unless this condition is promptly corrected, the most susceptible tissues, beginning with delicate serous structures, like those of the valves of the heart, are progressively invaded. We call one of these manifestations rheumatoid arthritis; another endocarditis, or pericarditis, etc. The cause and condition are the same, whether the manifestation is termed acute, sub-acute or chronic. The difference is only in degree, except that in chronic cases there is the added element of more or less effusion and hyperplastic exudation.

Essentially, then, rheumatism is a chemical disease.

Fortunately it is amenable to chemical antagonism.

To realize this we must study the basic etiologic factors.

To begin with, is rheumatism or the rheumatic diathesis hereditary?

This question may be answered both affirmatively and negatively, thus: The

flesh-eating propensity comes down from father and mother to son and daughter. Excessive flesh-eating generally excludes or prevents the free use of alkali-bearing vegetables, cereals and fruits.

The hereditary character of rheumatism can not be demonstrated in any more positive or rational light. The child born of rheumatic parents is brought up on the same rheumatism-propagating foods that its parents indulge in.

Prevention of the disease is far easier and a thousand times more rational than subsequent cure. How is this to be accomplished?

Has the child enlarged tonsils, a tendency to tonsillitis and adenoid growths? It is because he is saturated with the degenerate chemical elements that induce rheumatism. If the diet of uric-acid bearing proteids be maintained, the rheumatic manifestations are inevitable. It is only a matter of time as to when they will appear.

When they have already appeared, there is but one course: remove the cause, and neutralize the damaging acids that have already accumulated.

This can be done in two ways: (1) by promptly correcting the diet, and (2) by administering the proper chemical antagonists. Substitute vegetable proteids for animal proteids, since the latter contain and are always a source of the further evolution of uric acid.

The correct diet is composed of cereals, vegetables, nuts, fruits, cheese (not too old), and milk. Eggs may be added, as a variety, but are not ideally innocent.

The chemical antidotes are the alkalies, but it is not sufficient to administer these in a crude, inorganic form, since the system refuses to absorb inorganic material to any efficient extent. True, the saliva and urine may be promptly rendered alkalin by the administration of inorganic alkalies—soda and potash—but this is not effectual. The alkalies must be derived from vegetable or organic sources.

This brings us back to the diet.

Cereals, some vegetables, and all so-called acid fruits are rich in alkalin elements. In the apple it is malate of lime, in the lemon citrate of lime, potash, etc. Wheat is especially rich in alkalin phosphates, but it should not be emasculated by bolting, as this eliminates nearly all the alkalin constituents. Hulled wheat, cracked wheat and Graham meal, are some of the best forms in which it can be used. It is to be eaten without sugar, and thoroughly masticated.

Asparagus, celery, spinach and baked potatoes are reliable sources of the alkalin salts. Alcohol is to be strictly interdicted. It demoralizes metabolism, checks oxidation, and thwarts all other curative efforts.

When it is deemed necessary or judicious to add animal food to the dietary, it should be preferably in the form of white meats and fish.

All broths and meat juices which are merely stimulating and appetizing, but not nourishing, should be strictly interdicted, since they invariably and unquestionably foster the rheumatic tendency.

503 Fifth Ave.

The Issue.

McCONNELSVILLE, OHIO, Feb. 11, 1905.

EDITOR OF THE BRIEF:

I want to thank you for the stand you have taken against the medical examination required of physicians who are graduates of first-class medical colleges. The absurdity is still more apparent when a physician is qualified to practice in Ohio; if he steps over an imaginary line into another State he must go through the same ordeal. It strikes me that we ought to have a national law regulating the matter. It is undignified and humiliating to the profession the way things are now. School teachers are treated to a still more senseless regime, for they can not go from one county to another without an examination, but if they are willing to submit, that is their affair. I hope to see some sensible legislation in the case of physicians.

Yours truly,

A. M. RICHMOND, M. D.

Many physicians hold the same opinion that Dr. Richmond does, but do not come forward and say so. We can not hope for a national law and the repeal of the State medical laws until physicians demand it. Physicians all over the country should show up the absurdity of the present laws.—ED.

[Written for the MEDICAL BRIEF.]

Preventive Medicine.

BY D. A. BLAIR, M. D.,
Ellisville, Ill.

(Continued from page 246.)

CANCER.

While we have been busy repulsing this enemy, another just as terrible has reared its monster head, and the wail of its suffering victims disturbs our sense of seeming security. We refer to the fearful increase of cancerous affections. According to Health Commissioner Reynolds, of Chicago, in 1870, there were only 7.3 cancer deaths in every 1,000 from all causes, but in the decade ending in 1900 there were 28.9 such deaths in every 1,000, an increase in thirty years of more than eighty per cent.

Last year there were 1,003 deaths from this disease in a total of 24,406 from all causes in that city, more than 41 in every 1,000 instead of 7.3 in the decade of 1870; of 14.5 in that of 1880; of 19.8 in that of 1890, and of 28.9 in that of 1900. As yet, the etiology of this disease has not been satisfactorily demonstrated, but enough has been shown to convince us that heredity is one of the great causes of the spread of this disease.

LAWS REGULATING MARRIAGES.

In discussing the legal aspect of this subject of preventive medicine, laws in regard to marriage should be included.

When we read in the Book of all books that the sins of the fathers shall be visited upon their children, even unto the third and fourth generation, we are impressed with the recognition of the laws of heredity, even in those times when humanity was much nearer its primal condition in point of purity of blood.

In more modern times, many of our most profound thinkers have put themselves on record as agreeing with the above statement, and this being a recognized fact, why should there not be laws passed preventing the marriage of individuals affected with any transmissible disease.

Under the searchlight of modern science and investigation, many diseased conditions are recognized as preventable and curable which were considered beyond human skill, and they were in the past, but are not so at present.

Insanity, idiocy, and criminal degeneracy, all were looked upon as visitations from God, but the alienist and the criminologist claim that at least twenty-five per cent are due to a diseased condition, and are preventable, and to a greater or less extent curable. We know that in the marriage of criminals and idiots the progeny are almost sure to have the tendency of the parents. For illustration: In a certain prison in New York, six persons were confined for crimes of various characters. Upon inquiry it was found that of the same family there were twenty-nine relatives, seventeen of whom were criminals. Still further investigation showed that within seventy-five years, one thousand two hundred and twenty-five persons have sprung from five sisters, several of whom were illigitimate, and three of whom unchaste, and who married brothers, whose father was an idle, thriftless hunter, a hard drinker, and licentious. Of this family the history of one thousand two hundred and twenty-three was traced, showing the following appalling criminal record:

Paupers	280
Criminals	140
Thieves	60
Murderers	7
Prostitutes and adulteresses	165
Illegitimate children	91
Syphilitics	480
Cost to State	$1,308,000

Now we hold that crime is a social disease, which has its origin in the physical or mental defects of the individual, and is either congenital or acquired, and these two prime causes in conjunction with the environments are the great sources from which our penal institutions are supplied with inmates.

Many of these cases are amenable to treatment, and should be given the benefit of the best medical skill, especially the juvenile criminals. It is a well-known fact that if children of good parentage are placed so that their environments are of a criminal character, they are soon developed into full-fledged criminals.

And right here we wish to enter a plea for the separation of the juvenile from the old offenders in our penal institutions,

for, if their faculties are not properly developed (which is the case), if we compel them to live in an atmosphere tainted with crime, although they are novices, by association we find that their criminal tendencies are rapidly developed, and instead of benefiting, we only do them harm.

If we had a patient whose mind was feeble, we surely would not advise associates of a like character, and expect to see the patient's mind improve with the association. So it is with the juvenile criminals. Put them in healthy mental and moral environments that they may develop the undeveloped faculties. In other words, educate them to recognize the proper restraints of the law, and to curb their lawless propensities. In this way we cure them. Now, as to the prevention of these conditions, there is but one way, and that is to enact laws that will require anyone wishing to marry to show a family and personal history, clear from any taint of a criminal nature.

The influence of heredity in regard to crime is much greater than is generally believed. To illustrate: An individual's ancestry need not necessarily be criminals for the individual to show a criminal predisposition. Tuberculosis and cancer, etc., may be transmitted, and so affect the general nervous system that dipsomania and its attending evils are the results.

DIPSOMANIA.

"Joy and Temperance and Repose,
Slam the door on the Doctor's Nose."
—Longfellow.

In the whole, broad range of preventive medicine, there is no more useful or neglected subject for investigation than the present condition of inebriates. The question of reformation of drunkards, or those who indulge in intoxicating stimulants, has long been left with temperance societies, philanthropists, and religionists.

Science has only in comparatively recent years established the fact that inebriety is as much a disease as insanity or typhoid fever; the morbid fancies, the subjugated will power, and the abnormal longing for stimulants are symptoms of alcoholic poisoning. Inebriety has been defined as an irresistible, uncontrollable desire for alcoholic stimulants, which may be either acquired or the result of heredity. In regard to the inheriting of the desire, an eminent French physician says: "As a result of fifteen years' study in hospitals and prisons, I find that twenty-five per cent of the hospital patients inherited vitiated constitutions from alcoholic parents, and that sixty-five per cent of the criminals received the germ of their criminal instinct before birth."

He also says that no habitual drunkard can have sound children, and that, out of several thousand drunkards' children examined, not one exception was found.

On the other hand, inebriety may be acquired by the use of alcoholic stimulants, or it may be caused by an injury.

The patient may be subject to periodical attacks of craving, or may indulge in the continual use of liquor, though limited so as not to result in a drunken debauch.

The craving may be excited by the psychological association of persons or places.

Let the causes of the desire, or the manifestations thereof be as they may, the disease is amenable to treatment, and though every case may not be cured, yet the paroxysms of craving for unnatural stimulants may be prevented in a great majority of cases through wise sanitation, skillful treatment, and correct environments.

The preventive treatment is as varied as the causes which lead to inebriety, the environments of the patient, and the psychological phenomena of the individual. The present methods are inadequate to meet the constant and varying demands.

It is necessary for the well-being of the home, and the safety of the friends, in many cases, for the inebriate to be held in detention, and for the want of a better place the insane asylums are often used for such cases.

This is held by the best authority to be detrimental, not only to the insane inmates, but to the inebriates themselves.

There are in the United States a few Homes, or asylums, for dipsomaniacs, where the care and treatment of those suffering from the different forms of al-

coholic poisoning are made the subject of careful study and thorough investigation. Many have come from these institutions and lived sober lives afterwards.

Quite a number have entered of their own volition, after having made ineffectual efforts to overcome their appetites by personal methods.

But a vast majority of those suffering from inebriety are out of reach of these Homes, and they continue to be a burden to themselves, a disgrace to their friends, and a menace to society.

It seems to me there is a remedy which will do much as a preventive, and by so doing, be a prevention of crime as well, and it is this: That each State provide suitable Homes or asylums, for its inebriates on substantially the same basis that it cares for its insane; that there should be such laws enacted as will make requisite inquisition in each case of inebriety, and provide for such retention and treatment as the well-being of the patient himself and society at large require. The State makes provision for its insane, its feeble minded, and criminals, and why not for its inebriates?

If inebriation were prevented there would be a vast diminution in the number of the insane, the feeble minded, and criminals; and not only of inebriation may this be said, but also of the opium habit, and all other morbific tendencies.

MEDICINE.

Perhaps enough has been said in regard to the legal restraints, and the effect of heredity for the present, and hence we come to the second but not less important division, that of prevention of disease by means of medical or sanitary treatment.

In entering upon the discussion of this branch of preventive medicine, one is astounded at the immensity of the field to be gone over, and almost every day sees the boundaries being extended by the scientific investigations which are being conducted in the many laboratories in this country and in Europe.

Among the pioneers we have the names of Drs. Jenner and Pasteur, both working on the same lines, Jenner pursuing his investigations in the field, Pasteur in the laboratory, the former reaching his conclusions after a number of years of observation of facts presented to him in the course of a busy practice, the latter by patient experiment in the privacy of his laboratory. Both, however, have done an equal share of labor in ameliorating suffering and preventing the destruction of life by disease.

VACCINATION.

Small-pox was at one time, owing to the fatal and loathsome character it assumed, deemed the most terrible scourge with which a people could be afflicted; they fled from it as from the blast of death; all human ties were forgotten, and the law of self-preservation was the only one which governed the actions of the inhabitants of a community which became infected. Men and women, once stricken, were left to die in the streets, or wherever they were overcome by this fiendish monster, and selfishness reigned supreme in the hearts of men.

This is a picture of the pro-vaccination days. But with the advent of vaccination, how things are changed! Those afflicted are tenderly cared for by physician and nurse, who know they have an impenetrable shield in vaccination, and the people are more and more learning the salutary effects as a preventive, and we believe the mildness of the present epidemic is partially due to the vaccination of the parents. Occasionally we meet with opposition in regard to these prophylactic measures, and, as an argument against vaccination, are cited to cases where the vaccination, as they say, was worse than the disease. It is a lamentable fact that such cases have been, but it is only where the physician or patient was careless, or the virus not pure. To avoid the latter, it is only necessary to obtain the virus from an accredited source.

William Welch, of Philadelphia, who is an acknowledged authority, says, "I am firmly of the opinion that if all persons were properly vaccinated in infancy, and again at the age of puberty, Jenner's prediction as to the power of this agent to extirpate it from the globe, would soon be realized."

"I never saw a case of small-pox in a person who had a typical vaccination within nine years previous to the attack,"

says the Chief Medical Inspector of the Chicago Health Department.

Vaccination has been in practical use by the profession long enough to demonstrate to any intelligent mind the great benefits to be derived from its use, so that little more need be said in regard to it. We come now to the consideration of that disease which is equal, if not superior in rank to tuberculosis, both as to antiquity and destructiveness of human life.

(To be continued.)

[Written for the MEDICAL BRIEF.]

Sex—Dr. Lussier Answered.

BY SILAS HUBBARD, M. D.,
East Aurora, N. Y.

J. G. Lussier, M. D., in a recent issue of the BRIEF, writes that the left ovary produces male ova, and the right female ova.

The Doctor says the mother lying on the left side favors the production of a boy; on the right side a girl.

I will say if the Doctor or any number of physicians would spay many animals on the right side or the left and see what the effect as regards the progeny is, they might refute or confirm the Doctor's theories.

I would suppose that among the thousands of cases of oöphorectomy some surgeon would have discovered whether Dr. Lussier's theories were erroneous or true. Dr. Funhouser pretends that the right testicle produces males and the left females, and that he has demonstrated these assertions by a large number of experiments, but Dr. Lussier does not take any stock in such knowledge, for he says the male has no influence in the production of sex. I would say to every physician interested, overhaul the reports of every tubal pregnancy he can find in which the sex is reported. According to Dr. Lussier's theories every left tubal pregnancy ought to be a male, and every right tubal pregnancy ought to be a female. I would urge surgeons to report their cases in these respects.

Dr. Lussier says in substance if a woman or mare becomes impregnated nine days after delivery the sex will be the opposite of the last one born, *e. g.*, if the last one born was a male then in the aforesaid case the next would be a female.

I was the first to say the impregnation of an immature ovum shortly before menstruation resulted in a male, and if conception occurred shortly after menstruation the product would be a female.

I will take for example the case of a mare. If she gives birth to a female then she will not be likely to conceive again short of a month, and then as regards the sex of the conception, that will entirely depend on the time of the estuary, when the conception occurred. If the conception occurred in the beginning of heat the result would be a male, and if in the latter half of heat it would be a female.

In the case of the mare giving birth to a male, she would be likely to conceive on the ninth day, which would correspond to the first half of the intermenstrual period, consequently the product would be likely to be a female. I will briefly say again that if a mare gives birth to a female she will not be likely to conceive again short of a month, but if she gives birth to a male she would be very liable to conceive again in nine days, and in such a case as this is where Dr. Lussier was probably deceived; that because a female conception followed in nine days after the birth of a male, therefore he concluded an opposite sex ought to follow alternately at each monthly heat. The same law regarding immaturity and maturity of the ovum generally runs through the whole animal creation.

Some physicians have published the reverse of Dr. Lussier's theories, viz., that the right ovary produces male ova, and the left female ova.

Let physicians confirm or refute any or all of these theories by the means I have indicated, or they can suggest.

Enclosed find post-office money order for one dollar and fifty cents for the MEDICAL BRIEF for 1905, and *Funny Bone*. The BRIEF and its editor are like unto the children of Israel in Egypt, of whom it was said, the more they were afflicted the more they multiplied, and the better they grew.—A. J. WILLIS, M. D., Saratoga Springs, N. Y.

[Written for the MEDICAL BRIEF.]

In Old Roseau—An Idyl of the Caribbean.

BY WILLLIAM S. BIRGE, M. D.,
Provincetown Mass.

(Continued from page 243.)

The principal town and capital of the island is Roseau. It is a quaint, sombre-looking place, with its long line of sea wall, built of solid stone, ten feet in thickness. The houses, too, have a solid look, the principal ones being wholly or in part built of stone. This does not apply to the native habitations, which are much the same in all the West Indian islands, simply boxes of wood fifteen or twenty feet square, covered with bonnet or thatched roofs. Roseau is a very healthy city and no offensive sights or sounds are to be encountered. There has been no epidemic sickness for years, and very few cases of fever are to be found. There is an excellent hospital situated on Morne Bruce, about two miles from the city, where the poor of the island receive treatment free. It is open daily for the inspection of visitors, and an hour devoted to it is well spent. One ward will be found especiall, interesting, as it is occupied entirely by patients afflicted with the yaws, a skin disease confined entirely to the negroes, and which manifests itself by an eruption more or less over the entire body. As soon as a native is attacked with this disease he is immediately taken to the hospital, whether he will or no, where he is put on a wholesome diet and under general treatment, when he soon recovers.

The streets of Roseau are free from wheeled vehicles of any kind. Indeed, there is only one carriage in the whole island, and that, like the old fort, in whose courtyard it may be seen, is a thing of the past. The reason for this is easily explained. In the town itself the cobble-stone pavements would so shake up a man's interior, were he to drive over them, that it would be simply impossible to stand it; and outside of the town there are no carriage roads whatever. So that it is go on horseback or go on foot. There are many excellent horses on the island, however, and it is really a pleasure to mount one of them and take a ride into the country.

One point of interest in Roseau is the old fort. It is on a hill leading directly up from the water's edge, and commands a magnificent view of the harbor. Many years ago it was garrisoned with troops, and was considered one of the strongest fortresses on the islands; but those times have long since passed away, and the old fort, like the town itself, is a relic of bygone days. The structure is still very solid, and it will be a long time before the hand of time will destroy it. It is now used for police barracks, and the present inspector takes pleasure in keeping the grounds and premises in a neat condition. They are mostly set out to flowers, shrubs and fruit-bearing trees, such as the cocoanut, palm, limes, lemons and Smyrna figs. The inspector is a very genial type of an Englishman. He is one of the regular army men on the reserve list. He has fifty men under him in all, about thirty being stationed in Roseau. They are all blacks, and receive, according to rank, a salary of from $100 to $150. They are quite efficient, and the inspector told me that he had little difficulty in preserving complete order throughout the whole island, with a population of twenty-eight thousand. The natives, as a class, are very peaceable, and most of the arrests are for theft and drunkenness.

There are three religious denominations in the town, the largest of which is the Roman Catholic. The Church of England has a neat little edifice, and is supported by a congregation of about eight hundred. The other, the Wesleyan Methodists, has a small, but zealous congregation, and is regularly opened every Sunday for day services, and twice a week for evening prayer-meetings. Out of a population of twenty-eight thousand nearly twenty-seven thousand are Roman Catholics, and every little hamlet, no matter how remote, will have its church or chapel where services are held. The priests, for the most part, are Irishmen, and a more genial, kind-hearted, self-sacrificing class of men it would be hard to find.

While speaking of churches and ministers, I recall to mind an anecdote in Coleridge's "Six Months in the West Indies," of Mr. Audain, one of the early preachers in the Church of England in Roseau. The story is too good to be lost, and I shall

repeat it as I remember it. The Reverend Mr. Audain was a patriot; few of his cloth like him. He was not content with praying against the enemies of his country; he fought against them also. St. Peter certainly owned a boat, and the authorized translation (Mr. Audain loved literal orthodoxy) intimates a partnership among some of the Apostles in a ship. So Mr. Audain built a schooner and carried on for many years a system of practical polemics with the disputants of the French school, to his own abundant profit and notoriety. Some of the older inhabitants of Roseau can yet remember hearing their parents tell of Audain, with how joyful a rapture this holy Dominican once broke off his service on a Sunday, unable to repress the emotions of his triumph on seeing the vessel of his faith sail into the bay with a dismasted bark laden with sugar, rum and other Gallic vanities from Martinique. It was shortly after this event that the star of Audain began to wax dim. His zeal was equally great, his courage undaunted, but an evil destiny met him at every turn. An acquaintance met him one day in the streets of Basse Terre, in St. Kitts, surrounded by negroes, to whom he was distributing plantains, yams, potatoes and other eatables, and holding private talk with them all by turns. Having caught the eye of his friend, he came up to him and said: "I am going to smuggle all these rascals to Guadaloupe." He did so in his schooner, but himself remained on shore. A privateer of Nevis captured the smuggler before she could get to the market. Audain became furious, went himself to Nevis and challenged the owner of the privateer to fight. The challenge was not accepted, and Audain immediately posted the name of the recusant on the walls of the courthouse as that of a scoundrel. For two days he himself kept watch upon the platform, with sword by his side and four pistols stuck in his belt, to see if anyone dared touch the shield.

Audain fitted out another schooner and sailed in her himself; but fate was too heavy for him, though he struggled against it like a man. On the second day a vessel was seen on the leeward; he found it to be a Spanish trader, and supposing she was wholly unarmed, bore down upon her as upon a certain prey. When he came within pistol shot fourteen masked ports were opened, and as many guns pointed at him through them. Audain was obliged to strike in an instant, and with the carpenter succeeded in secreting himself under some water casks in the hold of the schooner. The Spaniards came on board and cut every man in pieces, except Audain and the carpenter. These two lay all night under the casks; but in the morning, upon further search, their asylum was discovered. They were brought on deck and the Spaniards were on the point of hewing them in pieces, when their captain exclaimed with an oath: "Hold on, this man's life is sacred and the other's too, for his sake." Audain had formerly done the Spaniards great service at St. Thomas, and it now saved his own and the carpenter's life.

Up to this time Audain, though occasionally non-resident for the aforesaid reasons, had continued minister of Roseau. He was a singularly eloquent preacher in the pathetic and suasory style, and he rarely failed to bring down tears upon the cheeks of most of those who heard him. His manners were fine and gentle, and his appearance even venerable. He was hospitable to the rich, and gave alms to the poor. But his repeated losses were such as to bear a royal merchant down, and the Dominicans became more scrupulous, and a Governor came who knew not Audain. So Audain abdicated the pulpit of Roseau.

(To be continued.)

[Written for the MEDICAL BRIEF.]

Local Application.

BY W. J. SANDY, M. D.,
Martinsville, Ind.

The following prescription is a most excellent application for the relief of pain, whether it be from a neuralgia or a local inflammation from any cause:

℞ Gum Camphor.....2 ounces.
Chloral Hyd..... ½ ounce.
Oil Wintergreen..... ½ ounce.
Fl. Ex. Cannabis Ind.....1 drachm.
Alcohol.....q. s.....3 ounces.
M. Sig.: External use.

The result of the above combination is a beautiful green, oily liquid, the use of which will often not necessitate the use of the hypodermic to relieve pain.

[Written for the MEDICAL BRIEF.]

Retrospective View and Discussion of Modern Surgery, Compared With the Administration and Application of Scientific Medicine.

BY WILLIAM PROTZMAN, M. D.,
Lincoln, Neb.

Both surgeon and general practitioner of medicine build their future prospects and reputation upon the good they accomplish and praises they receive from the community commending their services. Failures that are usually caused from a wrong diagnosis never receives praise or commendation from the public. Failures that are due to a wrong diagnosis are attributable to a lack of knowledge and application of the fundamental principles of scientific medicine, viz., anatomy, physiology, pathology and differentiation of symptomatology. Surgery is the handmaid or stepping stone to Nature's laws, it excises foreign pathological matter and coaptates contiguous surfaces to reestablish the normal function of nature's laws. While the application and administration of remedies arrest abnormal functions and pathological tissue changes that establish co-ordination between the various organs and tissues of the body, yet every physician and every surgeon is well aware that where there is a dissolution of continuity of the physiological laws of nature, as exemplified in the deaths of the lamented Lincoln, Garfield, McKinley and thousands of others every day, that neither medical acumen, the fervent prayers of the righteous, the beautiful song of Homer, the Helenic dreams in mythology nor the farcical claims of Christian science, did not and could not change the vibration of a single molecule to save the lives of those individuals.

But the science of medicine has arrived at an epoch when alluring fascinations for the surgeon's knife has been substituted for the application and administration of scientific medicine. This alluring fascination or craze for the surgeon's knife is not confined to the young graduate with his diploma in the one hand, and a full supply of surgical instruments in the other, and who locates in either city, town or country with the intention of bringing or exhibiting his surgical skill before the public by his successful operations. He claims to be very ethical, and perhaps in less than a month he performs some capital operation of the abdominal cavity and in a day or two the public is notified through the newspapers of the wonderful operation performed by Dr. —. But this alluring fascination for the surgeon's knife and notoriety is not confined to the young members of our profession; the field is swarming with old practitioners who are unwilling to be outdone by the younger members; they also supply themselves with the latest improved surgical instruments and a work that treats on operative surgery; but the great difficulty the old doctor has to contend with he feels that he has forgotten his minute anatomy, rusty in physiology and pathology, studies that had been relegated to the rear many years, neither has he been taking a medical journal for several years.

But he now begins to review his anatomy, and in a couple of weeks he feels himself qualified to enter the field of operative surgery and accumulate a fortune in a few years, is ready to plunge the knife into the abdominal cavity irrespective of pathological teachings that warns us that the abdominal cavity is a "Pandora Box" for the surgeon's knife, more especially during the acute inflammatory stage of disease. Eager for the fee, he is unable to realize that the success in operative surgery depends more on knowing when, than how, to operate. Neither does he care for the patient's physical condition, but the first case that presents itself that complains with acute or dull pain in the right iliac region and in less than five minutes he diagnoses the case appendicitis that required an immediate operation, providing the patient or his friends have the necessary funds.

Case 2 complains of a metastatic tumor in the abdominal cavity. His case is diagnosed floating kidney and must be operated on providing—.

Case 3.—Pain in the ovarian region; diagnosed either inflammation or ulceration of the ovaries. Must be operated on, providing the fee is guaranteed. The old

doctor, eager for all the surgery in the community, claims great advantages over his young competitor on account of his long experience in the general practice, while the young surgeon, fresh from his college, claims great advantage over his senior brother because he has kept pace with all modern advancements in operative surgery, therefore, his advantages are far superior to the older brother, calls him a "back number" that knows very little about modern surgery, etc.

There appears to be more truth than poetry in the young surgeon's arguments, yet I think the old doctor has great advantages over the young doctor providing he (the old doctor) has kept pace with the advancements of surgical and medical science, which I am sorry to say is the exception and not the rule. Comparatively speaking, is it not a fact that we have not only too many surgeons, but also too many physicians throughout the country, many of whom are not qualified, men who have a very limited knowledge of anatomy, physiology and more especially pathology, without which they make very poor diagnosticians, on which the successful surgeon and general practitioner depends. To illustrate this proposition, I will enumerate a few of the many cases that came under my observation within the last year:

Case 1.—A German lady about fifty-five years old was operated on for a floating kidney. The surgeon made a transverse incision on the right side below the ribs about five inches long, and instead of a floating kidney, he cut down on an enlarged liver, he closed the incised wound and abandoned the case (?), which afterward fell into my hands, and who is now well and hearty. (A wrong diagnosis.)

Case 2.—A rich farmer and his wife, living about twenty miles from the city, came to my office at ten o'clock at night with their only son, about fifteen years old. They had just come from the hospital where they had made arrangements to have their son operated on next morning at nine o'clock for appendicitis, "that the boy was in great danger; could not live forty-eight hours without an operation." I examined the boy closely, after which I informed his parents that the appendix was not involved and did not require an operation. They had a daughter living in the city; they took the boy to her house, following my directions and in four days took the boy home, who has been well ever since. (Another wrong diagnosis.)

Case 3.—In about six weeks after they had taken the boy home, the mother of the boy came to my office terribly frightened. Her home doctors told her she had cancer of the womb, advised her to go at once to Chicago and have it extirpated. I made a thorough examination and found enlargement and chronic inflammation instead of cancer, which quieted her fears. I gave her constitutional and local treatment and in two months she was entirely well. (Another wrong diagnosis.)

Case 4.—I was called to see a young man about twenty-three years old (milkman), who was suffering with acute pain in the right iliac region. The doctor told his parents in the morning that their son had appendicitis and would have to be operated on at once, etc. I informed his parents after due examination that the case did not require an operation. They followed my directions and in eight days he was on his milk wagon again. (Another wrong diagnosis.)

Case 5.—A young lady about twenty years old, came to my office terribly frightened. I asked her what her troubles were. She informed me that her doctor told her that morning she had appendicitis and would have to be operated on, etc. On examination I found her pain in the left side (?). (Another wrong diagnosis.)

Case 6.—And the last that I shall mention at this time. A young woman about thirty years old and mother of four children, lived about forty miles from Lincoln. She was told by her home physicians that she had a floating kidney, ovarian disease and lacerated womb. She came to the city of Lincoln, where the former diagnosis was verified. After making all necessary arrangements for the three operations at the hospital, her husband brought her to my office. I found a weakly little woman scarcely able to walk or talk. I made a close examination of her condition, but failed to find a floating kidney or ovarian

trouble. All I was able to find was a lacerated womb, in a state of chronic inflammation, her general health very poor, unable to survive, in my opinion, a simple operation. I began treating her with local and constitutional remedies; she began improving at once and is now ready for an operation of her lacerated womb.

And now before closing this part of my subject, allow me to repeat with emphasis, that we have too many professional surgeons that do not possess the proper surgical ability. Before concluding this article I wish to call special attention to the removal of the ovaries and the vermiform appendix. The surgeon that will remove the ovaries, or egg stock of a woman, an operation that not only destroys the sexual appetite, but the primitive cell of procreation, the rearing of a family as well as the vital principles and energies of her life without explaining the physiological action of those organs merely to get a fee, is a greater criminal than the highway robber, as there is not one woman or man in five that know the functions of those organs.

And now a few thoughts on the removal of that little despised organ called vermiform appendix, that is from three to six inches long and about the size of a goose quill, that arises from the lower end of the ascending colon near the cecum. It is formed in imitation of an intestine, hollow and guarded at its origin with a valve and clothed by a fold of peritoneum. Its function is one of the hidden mysteries of nature. Its enemies are legion among operative surgeons, therefore, any acute or subacute pain in the right iliac region is blamed on that poor little friendless organ, that must be removed within a very few hours (?).

Let me ask the reader of the BRIEF: Does it not look very strange that our Creator would place an organ from three to six inches long in a secluded place from other imposing organs, guarded by a valve and clothed with a fold of peritoneum without some specific object? Yet we are told by the operating surgeon that it is a useless body, that can be amputated with impunity, therefore, they get permission to operate. Results—Sometimes the patient dies on the operating table who was able to walk four or five squares and climb on the operating table himself. If he dies the patient's friends are told the operation was delayed too long, that the appendix had ulcerated and broke into the peritoneal cavity. If the patient survives the operation the surgeon claims a very successful operation, but in about ten days at least fifty per cent die, and at least twenty-five per cent of the other fifty per cent never make a perfect recovery. Yet the surgeon gets more praise for the twenty-five recoveries than the physician gets for saving ninety per cent without an operation. I have had fourteen well-marked cases of appendicitis within the last year, three of whom were to be operated on within a few hours, without the loss of a single patient and without an operation.

And now in conclusion, again let me ask any reader of the BRIEF if the appendix was placed in the human for some purpose or function by excising it, do we not rob the body of that purpose or function that it was intended for by the Creator? If so, is there any wonder patients never entirely recover from the operation?

For the Prevention of Consumption.

To the Medical Profession—

The next meeting of the American Anti-Tuberculosis League will be held in Atlanta, Ga., April 17 to 19, 1905.

Governor J. M. Terrell has tendered the Hall of the House of Representatives to the Georgia State Capitol for the use of the League during the meeting. He will deliver an address to the League on the first morning, as will other distinguished men.

The opening session is intended to be a broad one, in an educational sense, and the heads of the largest educational institutions of the United States will be invited to be present.

Reduced rates will be had on all roads. Hotel rates will also be made special for visitors. Over one thousand delegates representing the leading national and State medical societies have been enrolled.

Very truly yours,

GEO. BROWN,

Pres. and Ex-Officer.

EXAMINATIONS OF STATE BOARD OF MEDICAL EXAMINERS—NEW YORK.

EXAMINATIONS FOR JANUARY, 1905.
MAURICE J. LEWI, M. D., Secretary.

ANATOMY.

Tuesday—9:15 A. M. to 12:15 P. M.

Answer any ten of the questions under each heading, but no more. Check the number (✓) of each one of the questions you have answered.

1. Give a general classification of bones and illustrate each class.
2. Mention the articulations of the occipital bone.
3. Mention the muscles controling eye movements.
4. Describe the pulmonary artery, and mention its branches.
5. Mention and describe the veins carrying arterial blood.
6. Describe the mesenteric glands.
7. Describe the great sciatic nerve, and give its location.
8. Describe the crystalline lens. What changes are likely to occur in the crystalline lens in old age?
9. Give the relations of the gall-bladder.
10. What is the mediastinum? State how the mediastinum is divided, and mention the contents of each division.
11. Describe the vocal cords.
12. Give the gross anatomy of the kidneys.
13. Describe the prostate gland.
14. Describe the ovaries and state their normal relations to the uterus.
15. Mention in order the tissues divided in an amputation of the middle third of the femur.

PHYSIOLOGY AND HYGIENE.

Tuesday—1:15 to 4:15 P. M.

1. Describe ciliated epithelium and give its common location. State the function of ciliated epithelium.
2. Mention the conditions that hasten the coagulation of blood, and state the means that may be adopted to retard or to prevent this coagulation.
3. State the chemical and mechanical functions of the saliva. What relation does the saliva bear to the sense of taste?
4. Describe in detail the digestion and elimination of a breakfast consisting of plain coffee, oatmeal with milk, ham and eggs.
5. How does the nervous system influence gastric digestion?
6. Give the mechanism of respiration. State the effect of respiration on the blood.
7. What are (*a*) toxins, (*b*) antitoxins? Give the theory on which the prophylactic and the medicinal use of antitoxins is based.
8. Compare arteries, veins and capillaries as to structure and function.
9. State the effect of (*a*) stimulation of the cervical sympathetic nerve, (*b*) section of the cervical sympathetic nerve.
10. What causes the difference between the male voice and the female voice?
11. Give the physiologic and the hygienic effects of (*a*) cold baths, (*b*) hot baths.
12. Describe the most approved method of performing vaccination, and relate the complications that may occur as results of faulty methods.
13. What rules in public health administration should be promulgated to prevent the spread of pulmonary tuberculosis? How should a room recently occupied by a person suffering from tuberculosis be disinfected?
14. What is trichina spiralis? Describe the effects of trichina spiralis on the human system.
15. Describe a system of ventilation for a school-room.

CHEMISTRY.

Wednesday—9:15 A. M. to 12:15 P. M.

1. Differentiate mechanical divisibility and chemical divisibility.
2. Describe a method of generating *one* form of electricity. State the uses of this form.
3. Give the common name, formula, properties, preparation and uses of zinc sulfate.
4. Give the formula and method of manufacture of potassium nitrate.
5. Give the chemistry of hydrogen.
6. Define amid, anilid, radical, chemical chain, residue.
7. Give the symbol, atomic weight and valence of *five* non-metals.
8. Illustrate the significance of *each* of the following terminations: *ate, ite, ous, ic, id.*
9. Iodin is precipitated from sodium iodate by sodium bisulfite and sulfur dioxid; describe the reaction in chemical equation.
10. Determine the composition of water by (*a*) analysis, (*b*) synthesis.
11. State the composition, properties, and the mode of manufacture of carbolic acid. Give tests for carbolic acid.
12. Describe starch. How may starch be recognized chemically? What substance is formed when diastase or dilute acids act on starch?
13. State the theory of the ions.
14. Mention the principal products obtained from petroleum, and describe the properties of *one* of the products mentioned.
15. What is the source of uric acid in the economy? Give the formula and properties of uric acid, and mention its chemical tests.

SURGERY.

Wednesday—1:15 to 4:15 P. M.

1. Define contusion, hematoma, synovitis, fracture, dislocation, sprain, sepsis, asepsis, antisepsis, sterilization.
2. What are the characteristics of a chondroma? In what parts of the body are chondromata most frequently found?

3. Give the indications for nephrectomy, and describe the operation.

4. Give the immediate treatment of compound fracture.

5. Mention the varieties of dislocation of the clavicle. Describe the treatment of *one* variety.

6. Give the symptoms, diagnosis and treatment of gonorrheal arthritis.

7. Define diastasis. Mention the predisposing and the exciting causes of diastasis.

8. Differentiate arterial hemorrhage, venous hemorrhage, and capillary hemorrhage. On what properties possessed by the blood and vessels does the spontaneous arrest of hemorrhage depend?

9. Give the causes and treatment of rupture of the urinary bladder.

10. Give the physical signs of dilation of the stomach following tumor obstructing the pylorus.

11. Describe stricture of the rectum. Mention the causes and symptoms of stricture of the rectum.

12. Make a differential diagnosis of appendicitis and tubo-ovarian disease.

13. Give the causes, symptoms and treatment of acute iritis.

14. What complications may attend internal injuries of the esophagus?

15. Give the causes, symptoms and treatment of erythema pernio (chilblains).

OBSTETRICS.

Thursday—9:15 A. M. to 12:15 P. M.

1. Give a description of the internal female genital organs, and state the function of each.

2. Describe the various stages in the development of sexual reproduction.

3. State the signs and symptoms of pregnancy (*a*) before quickening, (*b*) after quickening.

4. Give general directions for the management of a normal pregnancy.

5. What are the causes of toxemia of pregnancy? Give the management, and state the results of this condition.

6. Describe the causes of dystocia as they relate to (*a*) the mother, (*b*) the child. Narrate the symptoms, and give the management of a case of dystocia from any cause.

7. Give the scientific definition of (*a*) abortion, (*b*) miscarriage, (*c*) premature labor.

8. Mention the causes of puerperal infection. State how puerperal infection may be prevented.

9. Give directions to be followed during pregnancy and the puerperium for (*a*) care of the nipples, (*b*) care of the breasts, (*c*) care of the abdomen. State method of calculating the date of confinement.

10. Give a clinical description of puerperal insanity. State the causes and management of this condition.

11. When is accouchement forcé indicated, and how should it be performed?

12. Describe the several steps in a high forceps delivery.

13. Mention the indications for puerperal curettage. State the dangers, and give the technic of this operation.

14. Give the causes, pathology and management of salpingitis.

15. How and when should an operation for laceration of the perineum from childbirth be performed?

PATHOLOGY AND DIAGNOSIS.

Thursday—1:15 to 4:15 P. M.

1. What conditions and environments influence body temperature in health? How does injury to the nerve centers influence body temperature? Explain.

2. Define thrombus, embolus, infarct. Describe the mechanism of an infarct in the spleen.

3. Describe the microscopic lesion in infantile spinal paralysis.

4. What is the significance of adhesions in a serous cavity or in a joint? Describe the method of their formation.

5. What retrogressive changes take place in arteries?

6. Describe blood-plates. What blood changes occur in chronic lymphemia?

7. Describe the condition of the urine in (*a*) chronic parenchymatous nephritis, (*b*) chronic interstitial nephritis.

8. Give a method of demonstrating the existence of tubercle-bacillus in sputum.

9. What pathologic changes occur in the skin in chronic eczema?

10. Give the technic of a physical examination of (*a*) the chest, (*b*) the abdomen.

11. Compare the physical signs of lobar pneumonitis with those of empyema.

12. Give the physiologic causes of persistent vomiting.

13. What is leucocytosis? State the diagnostic significance of leucocytosis. Describe a method of counting the leucocytes.

14. Give a description of a typical case of malarial fever.

15. Distinguish functional heart murmurs from organic heart murmurs.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

Friday—9:15 A. M. to 12:15 P. M.

"* * * in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its State Board of Medical Examiners."

Laws of 1893, ch. 661, § 146.

Questions prepared by the Board of Examiners representing the Medical Society of the State of New York.

1. Compare strychnin sulfate with strychnin nitrate for hypodermic use.

2. Give the etiology, symptomatology and prognosis of tabes dorsalis.

3. Mention the antagonists of veratrum viride.
4. State the therapeutic uses of gallic acid.
5. Give the causes and results of the uric acid diathesis.
6. State the average adult dose of (*a*) powdered opium, (*b*) tincture of opium, (*c*) camphorated tincture of opium, (*d*) morphin sulfate, (*e*) codein.
7. Give the source and the therapeutic uses of terpin hydrate.
8. Give the etiology, diagnosis and treatment of sciatica.
9. Define oxytocic. Mention *three* oxytocics.
10. Give the therapeutic uses of nux vomica.
11. In what disease is hemoptysis a frequent complication? Give the treatment of hemoptysis.
12. Mention *five* saline purgatives, and state the dose of each.
13. Give the therapeutic uses of pilocarpin.
14. How is intermittent malarial fever differentiated from remittent malarial fever? Give the treatment of intermittent malarial fever.
15. What is the chemical antidote for arsenic? Give the dose of this antidote.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

Friday—9:15 A. M to 12:15 P. M.

" * * * in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its State Board of Medical Examiners."

Laws of 1893, ch. 661, § 146.

Questions prepared by the Board of Examiners representing the Homeopathic Medical Society of the State of New York.

1. Give the symptoms calling for carbo-vegetabilis, belladonna trillium, millefolium, sabina and secale in hemoptysis.
2. Give the treatment of spasmodic croup.
3. Give the eye symptoms of argentum nitricum.
4. Describe the urinary symptoms of belladonna, cantharis, equisetum, and mercurius corrosivus.
5. Give the medicinal treatment of appendicitis.
6. State the clinical uses of conium maculatum.
7. Describe the hepatic symptoms of chelidonium.
8. Give the homeopathic treatment of pleurisy.
9. Describe the homeopathic treatment of lobar pneumonitis.
10. Describe the cough of (*a*) hyoscyamus (*b*) senega, (*c*) sanguinaria canadensis.
11. Describe the characteristic chest symptoms of antimonium tartaricum.
12. Describe the stomach symptoms of sepia.
13. Give the treatment of a case of gonorrhea.
14. Give the indications for calcaria carbonica in cholera infantum.
15. Give *four* characteristics of pulsatilla.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

Friday—9:15 A. M. to 12:15 P. M

" * * * in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its State Board of Medical Examiners."

Laws of 1893, ch. 661, § 146.

Questions prepared by the Board of Examiners representing the Eclectic Medical Society of the State of New York.

1. What is a styptic? Mention *three* vegetable styptics.
2. Mention the specific indications in a case of albuminous urine with headache and vomiting.
3. Give the source and the uses of atropin.
4. Outline a non-mercurial treatment for the tertiary stage of syphilis.
5. What is potassium citrate? Give the common uses of potassium citrate.
6. Give the specific treatment of heat-stroke, when the patient has a high temperature, and a bounding pulse.
7. State the composition and the uses of compound syrup of squill.
8. State the object and give the process of sterilization of milk.
9. Give the habitat and the botanic description of cactus grandiflorus.
10. Give the specific indications in a case of ascites from lesion of the liver.
11. What is aromatic sulfuric acid? Mention the specific indications for the use of aromatic sulfuric acid.
12. Give the treatment of poisoning by carbolic acid. What is the immediate cause of death in poisoning by carbolic acid?
13. Describe the black mustard plant, and state its medicinal uses.
14. Mention some vasomotor depressant drugs, and give the specific indications for their use.
15. Describe iris versicolor, and give the specific indications for its use.

Please send me the MEDICAL BRIEF for 1905. It was shown to me a few weeks ago by a brother physician, and I like it very much. Enclosed find the dollar.—EDGAR W. EMERSON, M. D., Manchester, N. H.

[Written for the MEDICAL BRIEF.]

Locomotor Ataxia(?)

BY P. W. BLAKELY, M. D.,
Galatia, Ill.

On October 6, 1904, I was called to see a sick man, aged forty-two, weight two hundred and fourteen pounds. A picture of health, said he never had been sick until about September, 1904; from which he claims he has never properly recovered. He was then treated by Dr. J. I do not know the character of his illness at that time, as I have not met the Doctor, but I think it was a malarial and bilious attack, common to this part of the country at that time of the year.

He complained of pains in back of neck and head, just beneath the occipital protuberance, and was vomiting a slimy-looking fluid; said stomach felt like it was trying to turn over. Pulse eighty-eight beats per minute and respiration twenty-four, no elevation of temperature; tongue dry, coated thick, and brown; breath very offensive, so much so that he said it made him heartsick to inhale it. Expression anxious and continually in motion. Face red, with cyanotic flush upon both cheeks, almost characteristic of double pneumonia, but percussion and auscultation revealed no lesion of lungs. Having no pleximeter I employed mediate percussion and immediate auscultation, not having my stethoscope with me.

I had no acquaintance with him, nor him of me. But this is what we need a dose of now and then, if we know how to serve it. However, it limited my duty and increased the burden of embarrassments. He was rational and is very intelligent.

I thought of many diseases and many remedies. Learning that he was a great beer drinker, and that he frequently mixed some whisky with it, I first thought of alcoholism, acute mania, cerebral-congestion, paralysis, and locomotor ataxia.

His intellect and strength were good, but his co-ordinating power was deficient. His eyes were dilated and snapping and darting about in their orbit or fossæ, with spasmodic velocity. Digital examination along the spinous process from cervix to coccix, found no soreness, except upon nape of neck and beneath occiput. He could not walk without support. Not for lack of strength, but lack of power to direct and govern it.

In walking him across the room his gait was fast, short, uncertain and staggering. Bounding forward, faster and faster, until when he reached chairs he would almost fall upon them, depending upon whoever was assisting him. Much excitement and fatigue; he had diplopia, or more than double vision. He said my spectacle case looked like five or six spectacle cases. Whenever called upon to perform any physical act his eyes would jerk and snap, much worse than when he was endeavoring to be quiet. After examination and from what facts I could just now glean, I was more impressed with alcoholism than ataxia, and bowels being full and somewhat bound; dry, coated tongue and foul breath, seemed to warrant the administration of calomel. I prescribed a few three grain doses of mild chloride, with instructions to work it off in the morning with oil and turpentine. I also left phenacetin to be given in ten-grain doses, to quiet him and produce sleep, if possible, as insomnia was rendering him quite nervous and (I thought) reduce the capillary hyperemia, as I preferred it to morphine, especially when administering calomel. I soon found that I would have to give morphine, one-quarter grain doses, once a day, and a big dose of bromide potassium at night to produce sleep, which was my intention. I found that I would have to increase the morphine, which I did, and this the stomach would not tolerate; so I then cut down on bromide potassium and gave morphine hypodermically. Appetite good. I put him on tincture digitalis in teaspoonful doses, every four hours, with tincture capsicum and elixir pepsin. He seemed to improve and sleep right up to the time of taking medicine and his meals, the last of which he took regularly. He claimed he was much beter and would be out in a few days. Lo! One morning the lady 'phoned me to come at once. On my arrival I learned he had fainted while sitting in a chair a few minutes so his bed could be changed. He seemed to think he had been rendered unconscious for a short time, and said he saw sights that he did not

want to see again. He spoke of it as pertaining to eternity, in some form or other. He had appeared quite hopeful all along and very jolly, but this seemed to discourage and morose him. I cut out unnecessary visiting, noise and light. I had him on this treatment four or five days, and in the way of auxiliaries gave cactus grandiflora now and then, and syrup of hypophosphites, and when it fails in nerve troubles they all fail with me. I had spinal column joints and popliteal spaces shampooed and kneaded with hot, stimulating liniments every day, and now and then a hot sponge bath; also prescribed two tablespoonfuls of good malt whisky three times per day. The appetite during this course was pretty fair, except when bowels would bind up. He would vomit occasionally, but after flushing them out with hot medicated enemas, seemed to relieve these troubles. But after, say, ten days' course of this treatment, his improvement was not satisfactory. So I had them call Dr. Swan, and he made a very thorough examination and suggested that we put him upon iodide of potassium, twelve-grain doses, three times a day. Please permit me to say just now that during all this time I saw nothing materially wrong, except co-ordination, and the spasmodic jerking and snapping of the eyes and the general train of nervousness.

I suggested a fly blister to back of his neck, but he objected, so finally, some one mentioned Dr. F., and he came in counsel and made examination and in consultation seemed to think as I did, and said to apply cerate of Spanish flies and raise a good blister and dress it with cabbage leaves. And we also applied an appropriate poultice to occiput and renewed it for several days. Dr. F. also suggested elixir of iron, quinine and strychnine, iron and gentian. He seemed to improve some, but I fear it will not be permanent. After this course, or during it, we had him try electricity. He has improved very much, but is it permanent? His co-ordination still deficient, and spasmodic snapping of the eyes, but he can see better and walk with aid of a stick.

This man is quite intelligent, has two diplomas on coal mining and surveying; served five years in the United States navy, board of the gunboat Concord, under command of Captain Asa Walker, alongside of the renowned Bob Evans. He is a grand specimen of mortal man and a Master Mason of twenty-three years standing.

We want help, diagnosis and treatment and opinion of our course of treatment. We will expect many of THE BRIEF family to respond, but as the grand editor's turn comes first we will expect him serve first.

Any personal suggestions will be appreciated.

[Written for the MEDICAL BRIEF.]

Pleurisy Following Mumps.

BY J. W. BRYANT, M. D.,
Shamrock, Missouri.

On the 8th day of April, 1903, I was called to see K. M., aged twenty-seven years, height six feet, weight two hundred and fifteen pounds, complexion ruddy, occupation farming, living near the banks of a water course. I found him in bed with his jaws swollen from the mumps. His right testicle was slightly swollen and painful. There was a slight rise of temperature, a slight acceleration of the pulse, tongue a little coated, no appetite. I prescribed aconite and quinine, and told the folks that I would not be back unless sent for.

On the 11th I was again called, and found the patient with considerable pain in the small of the back (lumbosacral), and increased pain in the right testicle. A hypodermic of one-quarter grain morphia and one one-hundred-and-fiftieth grain atropine injected in the lumbosacral region, and a lotion of opium and belladonna applied to testicle controlled the pain.

On the next day patient complained of a nervous or tingling feeling in his feet, and of inability to keep them quiet. I suspected hypochondria, and thought that by placing my patient on a tonic to improve his appetite, he would soon be up. From this time nothing noteworthy occurred, excepting neuralgic pains shifting to different points of the body, till the afternoon of the 24th of the month, when the patient himself called to me over the 'phone, stating that he had a soreness in the stomach "just like he had been

beaten." In a few minutes another message came that he could scarcely get his breath, on account of the sharp pain in the right side. When I reached him I found patient with a pulse at eighty beats to the minute, temperature 101° F., moist surface. Morphia was given by the mouth, and a mustard draft applied over region of pain in the right side. The pain shifted to a point midway to the right groin from the point in the side, but became permanently located in the right pleura by the next day.

Opiates and plasters failed to do more than soften the pain, perspiration became profuse, pulse rose to ninety, temperature remained at 101° F. The third day after the pain became pleuritic I decided upon venesection, and opened the cephalic vein of right arm, extracting thirty-two ounces of blood (the patient being decidedly robust), and continued to apply the mustard draft. I also administered capsules of morphia, acetanilid and quinia. The patient kept easy all that day, was entirely without pain that night and next morning had an appetite for a light breakfast, this, the fourth day of the pleuritic pain. At three P. M. I was 'phoned that the sore feeling had returned to the region of the stomach. I 'phoned back, mustard draft to stomach and morphia tablet by mouth. At four P. M. I was surprised with the request (from the mother) to meet another doctor in consultation, but acquiesced. The pulse at no other time had reached as high as one hundred and the temperature had been no higher than 101° F., but upon reaching the bedside I found the patient with a pulse of one hundred and thirty, and a temperature of 103° (sublingual). The kidneys had not been sufficiently active from the onset of the pleuritic trouble. Micturition was infrequent, scanty and highly colored. Upon standing a few hours in the vessel the bottom and sides were left painted a blood red.

Upon consultation the treatment was somewhat changed. We applied a plastic dressing over the inflamed pleura. Morphia hypodermically was continued; acetate of potassium was added to the prescription (already given) of saw palmetto and couch grass, capsules containing quinine, acetanilid, caffeine, sodium and antipyretics, were given for the pain. For the heart aconite was increased to five drops every three hours; calomel was given to stir the liver, which had all along been torpid. Physical examination showed effusion in the right pleuritic cavity.

Next morning temperature was down to 99 4-5° F., pulse eighty-eight, respiration (which was always short and rapid when suffering pain in the pleura) was now about normal. The appetite had slightly improved from the day of blood-letting. Each day for about five days, there was a recurrence of the pain in the stomach, but so light as to be controlled without morphia. Patient slowly progressed to recovery.

I consider the blood-letting and plastic dressings of first importance in the case. The plasters were of sufficient size to cover entire right side, and were an important factor in easing pain and absorbing or extracting fluid from pleura.

In this case the plaster itself was not only saturated with moisture when taken off, but the entire body of patient would be covered with perspiration so profuse as to resemble rain drops.

The mumps claimed my attention from the 8th to the 15th of April. The pleurisy called for close attention from the 20th of April to the 6th of May.

[Written for the MEDICAL BRIEF.]

Carbolic Acid in Vomiting.

BY M. DILLS, M. D.,
Carlisle, Ky.

I desire to call attention to the administration of carbolic acid in cases of vomiting, I care not from what cause.

Clinical.—A patient with extreme nausea, pain in stomach and bowels, stomach irritable and vomits everything taken; cause frequently unknown. Dissolve one minim carbolic acid, pure, in ten minims alcohol. Put this in half-glass of water, and give teaspoonful every thirty minutes until patient is relieved.

In sub-acute troubles we so often find in children with diarrhea, I find nothing equal to this. Here is a remedy too much neglected. You know its properties, do not hesitate to give it. You will be well paid for the trouble.

[Written for the MEDICAL BRIEF.]

Chicken-Pox.

BY ANSEL STRICKLAND, M. D.,
Cumming, Ga.

As there has been so much diversity of opinions in regard to the differential diagnosis of cases of chicken-pox and small-pox, and that we find so little written on chicken-pox of late date that the rising generation of physicians has lost sight of this disease, calling it modified small-pox, I have been treating chicken-pox for the last twenty-five years, and for the last four years I have been back-tracking its history, putting together all the reliable history on the subject that I could find from the year 1550 up to the present time, and such points in its history that were not definitely settled I have carried on the necessary experiments to settle them beyond a doubt.

In carrying on my experiments I have been careful to keep the patients well isolated, so that there could be no room for doubt. The additional points which I give in the history of chicken-pox are facts brought out by a number of experiments, and not merely hearsay.

In the year 1550 we find a Sicilian physician describing this disease with considerable accuracy. In the year 1646 we find Riverius describing the same disease in about the same words.

Morton, in the year 1690, gave to it the name of chicken-pox, as he found the period of incubation in all of his isolated cases to be twenty-one days, and that being the period of incubation of a chicken, he thought it an appropriate name. Up to the time of Morton this disease had many names, to-wit, varicella, because it resembled variola; chrystal-pock, because in some persons the vesicles had a shiny look; water-pox, because they found the vesicles contained nothing but water; and hog-pock by others, because in the bad cases, when the scales began to shed, had the appearance of a hog with the mange.

In the year 1820, Dr. Thomas, of Edinburg, Scotland, wrote that he had watched cases of both small-pox and chicken-pox in the same hospital at one and the same time, and that he was forced to decide that either chicken-pox and small-pox was one and the same disease, or that one gave protection against the other for some time, as those patients that were carried to the hospital with the chicken-pox did not contract the small-pox, although they were in the same ward with small-pox patients, nor did he see any of the small-pox patients contract the chicken-pox.

Dr. Eugene Foster, of Augusta, Ga., said that he had seen cases of chicken-pox in the small-pox hospital of Augusta, Ga., and that he had further noticed that if he had the chicken-pox cases carried away from the small-pox hospital as soon as they were able to travel that they did not contract the small-pox, but that years afterwards some of them, thinking that they were immunes, did take small-pox.

Dr. Foster said that he thought the most of the so-called second attack of small-pox occurred in this way. Dr. Calhoun Fisher, of Atlanta, Ga., said that he very often saw well-developed cases of chicken-pox in the small-pox hospital of Atlanta, Ga. He further said that as soon as he saw the chicken-pox cases he would separate them from the true cases of small-pox, and as soon as they were able to travel, sent them home. Dr. Fisher further said that he never saw a patient have both chicken-pox and small-pox at one and the same time.

I can say that I have vaccinated a patient that had been through a small-pox hospital, thinking that he had had a case of true small-pox, the vaccination taking well, proved to me that I had found one patient that had ridden through a small-pox hospital on a chicken-pox back. I never have been able to vaccinate any patient that has had true small-pox. Dr. Williams, on vaccination, says that no person can be vaccinated after he has once had small-pox, but that chicken-pox occurs both before and after vaccination. But no writer says that a patient can be vaccinated while he is afflicted with chicken-pox; they all say after and before, and none say how long before or how long after.

A patient of mine was exposed to chicken-pox. I put that patient in a room with five others and isolated them. On the seventh day I vaccinated the entire

crowd, and to make sure work I vaccinated the one that was exposed to the chicken-pox in thirteen places. Now, mark you, the five unexposed patients took well, while the exposed patient did not take, although he was vaccinated in so many places from the same virus as the others. This showed two things: that the virus was good, and also that after a patient had chicken-pox in his system for seven days he could not be vaccinated. On the twenty-first day after the exposure that patient broke out with chicken-pox. None of the other five took the chicken-pox from this one, as they all had good sore arms from the vaccination when this one broke out. They all stayed in one small room. I made this same experiment over and over, for two years with the same results.

I went to another house where there were four cases of chicken-pox well broken out, and paid them to let me vaccinate each of them every eighth day until the vaccination would take. I used arm to arm vaccination in these cases to be sure of a take, but none took until after the eightieth day. They all took before three months' time was out. This same experiment was carried out in a number of cases in two years' time, with the same results. Vaccine points can not be depended upon in test cases; you should always use arm to arm vaccination in test cases.

No patient can be vaccinated after he has had small-pox; on that point all writers agree. No patient can be vaccinated after chicken-pox has entered his system, until said chicken-pox has passed out of his system. No patient will take small-pox while he is broken out with chicken-pox, although he be in the same room with small-pox. No patient will have both chicken-pox and small-pox at the same time.

In all isolated cases the period of incubation of chicken-pox is twenty-one days, so said Dr. Hudson, of New York Polyclinic, and many others. And in over thirty cases that I isolated to test, I found it twenty-one days; none went over that time and none went under, from which it took the name of chicken-pox. Some writers said that it took its name from the fact that the little pits left by it looked like a hen peck; if that were true, then it should have been called hen-pock.

Chicken-pox is but slightly contagious and only while the fever is on the patient, and that may be for five days or for fifteen days, owing to the length of time the fever holds to the patient. I knew a man to sleep with his wife while she had it, and not take it, but a month afterwards took it from one of his children. This family consisted of nine members, and it took over three months for the chicken-pox to go through the family, with no deaths, while small-pox would have gone through this family in about twenty-eight days with at least three deaths.

Some writers say that it is only a disease of childhood, but Dr. Eugene Foster, of Augusta, Ga., said that he had seen it in patients of all ages. Dr. Williams said that he had seen it in patients of all ages. Also Dr. F. H. Dillingham, Professor of Dermatology in the New York Polyclinic, said in the MEDICAL BRIEF for January, 1905, that he had seen this disease in adults. That idea that chicken-pox was only a disease of childhood was conjured by the city physician.

I saw a family that had it, the youngest of which was one year old, and the oldest was seventy-two years old, all down with it at the same time. No doubt about this family having chicken-pox, as I kept the family isolated, and after ninety days I vaccinated them, and it took well, and to further show that it was chicken-pox, I did not have them to use any disinfectants in the house, and others came and went to the house after they were well, and it did not spread. I made a test case out of this one to show that adults did have chicken-pox.

No one is exempt from chicken-pox unless he has already had it, or at the time of his exposure he has a fresh small-pox vaccination on his arm, and then only for a short time. Most people that live in the cities have it before they are ten years old, as they mix and mingle so much, but not so in the thinly-settled country, where they are seldom exposed. No person can take chicken-pox while he has a fresh vaccinated arm. I have tested this several times, but after his arm gets well he will take it.

Chicken-pox is not so fatal as measles, but resembles measles in one thing, to-wit, the older the patient, the worse it hurts; the younger the patient the less it hurts. The breaking out begins on the body, and in bad cases it extends to the inside of the hands, also bottom of feet and mucous membrane of the mouth.

The vesicles when fresh have water in them, and come in crops, fresh one every day for four or five days; some of the vesicles are umbilical, the scab is small and thin. There is an intense itching with the forming of the vesicles, and if at this stage it is rubbed or scratched it will leave a deep scar that will be for weeks getting well, but if the patient will not scratch or pick at the scabs, there will be but little scarring.

When a mulatto negro has the chicken-pox and gets able to go to his daily work, you will see a black spot where each vesicle was; that spot will be much blacker than the other skin, but said black spot will gradually fade away, and in about twelve months the entire skin will have regained its natural color. Go to a patient that has begun to shed his chicken-pox scabs, and look at him close, and you will see that the water in the vesicles was between dermal and the epidermal coats of the skin. Do not stand off twenty feet and try to form a diagnosis. The following is what every physician should remember:

Chicken-pox but skin deep,
Small-pox to the bone;
Chicken-pox fades away.
Small-pox holds its own.
Chicken-pox scars fade very fast,
Small-pox scars hold to the very last.

There is nothing in the name chicken-pox that indicates that it is a disease of childhood. While we are told by the older medical writers that the word small was put before the word pox in changing the name of variola to small-pox, as they found it so fatal to children. Ninety per cent of the children that had small-pox died with it.

Differential Diagnosis.—The period of incubation in chicken-pox is twenty-one days, and the period of incubation in small-pox is fourteen days only. On that point I will say that I collected the data from over one hundred cases, where there could be no doubt, and fourteen days was the time, not from seven to twenty-one days, simply fourteen days. I wrote letters to a number of small-pox experts, so-called, and they all gave the period of incubation as fourteen days. One expert told me of the following case where it was doubtful, to-wit, a negro was put in jail; he asked that his coat be sent for; the coat was brought to him and hung up in his cell. On the twenty-first day after that coat was put in the cell that negro broke out with small-pox. That could not be used as a test case, for it might have been seven days after the coat was put in the cell before he contracted the small-pox. The man that brought the coat to the jail did not take small-pox from it.

The mortality among children in chicken-pox is only one death in three hundred cases, while the mortality among children in small-pox is put down ninety per cent. Quite a difference.

Very few people die with chicken-pox, while small-pox kills about half of its victims. Chicken-pox is but slightly contagious, while small-pox has the reputation of being the king of contagious diseases. Pick a fresh chicken-pox vesicle and you find water; prick a fresh small-pox bump and you will strike a hard knot like a shot under the skin, and not in the skin, and the small-pox scabs are large, thick and dark, hard to detach, and if you will dissolve one in water it will vaccinate any unvaccinated person, although it may be years old.

Chicken-pox scabs are small, yellow, thin and easy to detach, and I have not been able to vaccinate any one with chicken-pox scab.

Very often when there is an epidemic of some skin disease that looks like small-pox the physicians disagree as to whether it is chicken-pox or small-pox.

How to Settle It.—First take the period of incubation in the isolated cases.

Second, pick the fresh bumps. If find water, say chick.

Third, whether new vesicles appear each day for four days.

Fourth, size and color of scabs.

Fifth, vaccinate the patient from arm to arm vaccination, after he has been well ninety days.

Sixth, look at the pits, say one year after he gets well.

Seventh, the death rate.

Treatment.—All the standard works on chicken-pox say no treatment is necessary. I will give the results of my experiment in treating three cases in one family at the same time.

To case No. 1 I gave chalk in ten-grain doses three times a day. To case No. 2 I gave alder teas hot, three times a day. Case No. 3 I gave whisky freely like a case of measles.

Look at the results:

No. 1 fared well, had but a few bumps and no pitting.

No. 2 fared bad, had to go to bed, was very well covered with the eruption.

No. 3 fared very bad; it got into his hands and the bottoms of his feet, mouth, nose, and successive crops kept on coming out as long as he took the whisky.

Now if any doctor wants to scare everybody in the country over a case of chicken-pox, and make the case resemble a case of small-pox, give the patient plenty of stimulants, and it will convert a mild case into a confluent one. The best treatment is ten grains of chalk three times a day. Chalk three times a day is a favorite prescription.

[Written for the MEDICAL BRIEF.]

Typhoid Fever.

BY J. W. LOCKHART, M. D.,
St. John, Wash.

[Comment on Dr. Blair Article.]

I have just been reading Dr. Blair's article in the March number of the MEDICAL BRIEF, and am not a little interested therewith. That doctor writes with that sweeping assumption of facts and theories that is more characteristic of fancy than of sound reason. For instance, the Doctor assumes, without any show of demonstration, that because the death rate from typhoid fever in certain cities diminished almost simultaneously with installation of filters for the water supply that the diminution of the death rate was due entirely to the purer supply of water. The fact is well established beyond controversy that the death rate from typhoid fever and other diseases varies greatly not only for different years, but for different series of years in cities and rural districts without any appreciable change in the sanitary conditions.

I have had an interesting experience with typhoid fever that I would like very much to have some one who believes in the germ theory explain. For nearly twelve years I had the medical practice of this town and surrounding country entirely to myself and have had, of course, an excellent opportunity to observe certain diseases, especially typhoid fever. I could never see my way clear to believe in the germ theory of disease, and consequently have paid but little attention to the disinfection and disposition of discharges from the sick. For several years I had from four to seven or eight cases of typhoid fever to treat each year. Then came a year in which I treated fifteen cases, all except four being in the country where there had never been any case of typhoid fever. Five of these cases occurred in one family where the drinking water came through a pipe from a spring forty rods from the house. The next year I treated five or six cases of this disease, and the year after fifty-five cases, mostly in town. Reaping the reward of former carelessness! I hear the bacteriologists say. But the fact is, that in only one instance did the disease occur in any house or on any premises where there had ever before been a case of this disease.

Since that epidemic, that is, for the four years last past, there has been from two to four cases of this fever in town each year, and in only one instance has the disease reappeared on any premises where it had been before. The year before last there were but two cases here, and both of them were in a new house in a new addition to the town and quite remote from any other residence. The water supply was from a new well. This year the same thing was repeated, only in another house. The general water supply is from wells from fifteen to twenty-five feet deep. The soil is porous and easy of penetration by disease germs. There is no sewage system, and no sys-

tematic effort at sanitation. The population of St. John is now about six hundred, and is rapidly increasing.

These statements can be substantiated by affidavits, if necessary. There is no fancy or imagination here. If the germ theory of disease, and that of a germ-infected water supply as the cause of typhoid fever, is not one of the colossal mistakes of the age it must be that some unseen power has performed a stupendous miracle here in this little burg. What became of all those myriads of fever germs with which the soil must have been polluted four years ago? Who will rise and explain?

This State is cursed with a pure food law that would be intolerable were it not for the fact that it is not enforced. A law recently enacted makes it a criminal offense for any one to sell a little milk to a neighbor for a sick child unless his cow has been "endorsed" by the State Board of Health. It is a crime to sell milk that has been subjected to a temperature of 55° F.; that contains any pathogenic germs, or any foreign substance whatsoever. "Foreign substance whatsoever" is quite a sweeping term and only milk treated by the very best of "separators" would be at all marketable. See! If you keep a cow for your own milk supply and sell your neighbors a little milk in order to lessen the expense of the cow, buy one of my "separators" or quit selling milk. The number of germs which milk may contain is also fixed by law, and if after having your cow "endorsed" by the State Board of Health and buying a separator the bacteriologist should swoop down on you and find a few too many germs, either patho- or non-pathogenic, in the milk you sell, you can pay fifty dollars fine and go to jail for three months (unless you can compromise (?) with the bacteriologist for a less amount). The argument in favor of this kind of legislation has ever been and always will be: "The health of the people must be the supreme law of the land," even at the expense of liberty destroyed, and the shackles of tyranny riveted upon the individual citizen.

[Written for the MEDICAL BRIEF.]

A Peculiar Case of Labor.

BY T. CHAS. BUXTON, M. D.,

Grand Medical Examiner of the Toilers' Fraternity and Coroner of Macon County, Ill.
Decatur, Ill.

It is with some hesitancy I pen the report of this case, but owing to its peculiarity I would not think of mentioning it, though it may put some one in a better position to diagnose and treat intelligently another such case.

Mrs. S. L., aged thirty-five years, gave birth to a seven-pound child; the labor was normal, no difficulty, placenta delivered in ten minutes clean, not a break in the membranes surrounding it.

The first seven days she did well, and on the night of the eighth about ten P. M., I was called. On arriving I found her vomiting, temperature one degree below normal, 97½° F. Pulse weak and wiry, beating but sixty-three times per minute; tetanic contractions of the abdominal muscles, clonic contractions of the muscles of the genital tract, pains almost equal to her travail. Could not elicit any history of chill or fever, the evening diet being two poached eggs, a piece of toasted bread, some butter and a glass of milk.

I administered

℞ Calomel ..... ⅓ grain.
Ipecac ..... ⅓ grain.
Sodii Bicarb ..... ⅓ grain.
Digitalis ..... ½ grain.
Acetanilid ..... 3 grains.

Vomiting ceased, but the temperature did not raise to the normal. The pulse was still growing weaker from the effect of the acetanilid. I then administered hypodermically—

℞ Glonoin ..... 1/40 grain.
Digitalis ..... ½ grain.

This brought the pulse up to normal.

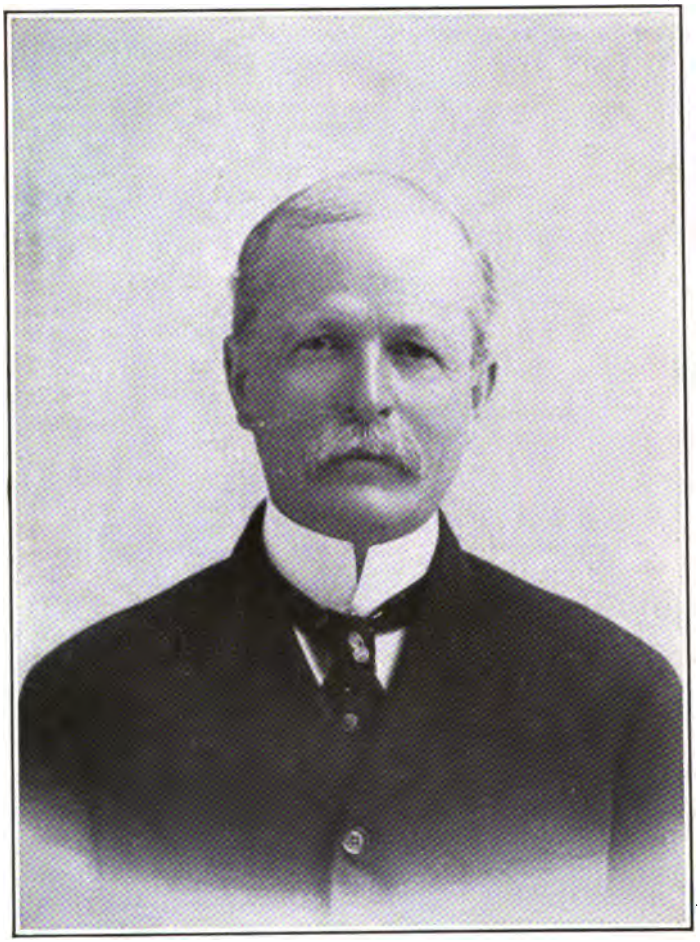
The next morning I returned. The temperature was still low, pulse weak and wiry. I then ordered a hot water douche, the water to be not less than 80° F., and in a few minutes the pulse rose to normal.

I elicited the following history: 9.30 copulation.

If you want to make sure of getting the BRIEF send your dollar now.

William K. Otis

M. D., Professor of Genito-Urinary Diseases, New York School of Clinical Medicine; Consulting Surgeon to the City Hospital; Attending Surgeon St. Mark's Hospital; Attending Surgeon West Side German Dispensary; Fellow of the New York Academy of Medicine, etc. New York City.



Robert C. Myles M.D.

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Editorial.

Cooks and Doctors.

A close observer must have noticed the part which specially prepared foods play in the treatment of disease. Already in some of the large cities we find diet kitchens, in which easily digested and pre-digested foods in considerable variety can be had on the doctor's prescription.

In the smaller cities and towns, however, progress in this direction is slower, and the doctor finds it necessary to supplement his knowledge of drugs with a knowledge of the preparation of foods. The time is fast coming when we shall give fewer medicines, and accomplish more by means of foods especially adapted to the needs of each individual case.

The doctor can not know too much about foods, their chemistry, preparation and particular value in correcting states of malnutrition. One diathesis, for instance, is greatly benefited by the use of fruits. In another their use, even in moderation, causes irritation and diarrheal disturbances. Some are omnivorous eaters of fruit, others require a careful selection.

The same may be said of vegetables. There are times when a purely vegetarian diet will lessen excitability, reduce blood-pressure, enable the system to free itself of waste, and encourage recuperation. But in a case of intestinal indigestion, anemia, depression, or where the patient is suffering from phosphaturia, the doctor will have to depend principally on animal food.

It is marvelous to see how the work of digestion can be reduced by the scientific preparation of food. Nor are such foods insipid by any means. The educated palate is not only gratified, but immediately detects the digestibility of these products.

Cooking has become a science as well as an art, and the coming doctor has got to be a good cook and a physiological chemist as well. The successful doctor of the future will have to know enough about the preparation of foods for the sick to judge whether they are properly done or not,

and to demonstrate the correct method of preparation where necessary.

The up-to-date doctor is not afraid of compromising his dignity by anything he may do in the interests of his patient. *Knowledge, not dignity, is the main desideratum of this age. The single aim of the modern man is to secure results.* The doctor who can go down into the kitchen and show the cook how to prepare a diet which his patient's feeble digestive organs can manage is "solid" with that family.

Read everything that comes your way on the dietetic value of food, then make a practical study of the subject at first hand. Remember that medicines can not correct pathological conditions where an incorrect diet is the principal cause of trouble. Many foods are absolutely spoiled in the cooking. They are overdone or underdone. One is as bad as the other. A food which is overdone is robbed of much of its nutriment; if it is underdone, too much work is thrown on the digestive organs.

Starchy dyspeptics are benefited by the proper cooking of amylaceous foods, using first one then another, never more than one such food at a meal.

The increasing draught upon our vital energies caused by the high pressure at which we live, is bound to make the subject of dietetics a very important one. To know the value and place of a food, and how to prepare it, must be a part of the doctor's equipment in the near future. Get ahead of the times, Doctor. Be on the alert for suggestions along this line. Get all the information and practical knowledge that you can. Let the other fellow do the dignity stunts if he wants to. You look after results, and your patients will cleave to you.

A Political Directory.

It is to be hoped that the American Medical Association will not be guilty, as announced, of publishing a political directory of its membership, thus seeking to give the inference that a man is not in good standing unless he is a member of the association. To do a thing of this kind would be rank folly; in fact, it would be the ruin of the A. M. A.

Suppose any religious body should issue a statement that the members of its particular church were the only Christians. Such an action would bring it into ridicule, and do more harm than good.

Certain ideas which once obtained have been outgrown and outlived by the intelligent and progressive spirit which dominates our age. To go back to them is to invite failure, and bring one's self into disrepute.

The day is past when a man can be forced to do a thing. It is true that trusts, trade-unions, political machines, and other organizations are constantly attempting to compel men to do things where they can not reach them by logic, but such methods invariably cause a reaction in sentiment, which will finally overwhelm the offender, and bring about defeat.

The idea of publishing a directory to imply that members included therein are more ethical than non-members is unworthy of the intelligence of those supposedly responsible for it. There are good men in the association, no doubt, but there are equally good men outside. To attempt to use the association to take an unfair advantage of the outsiders will smirch its good name, and forever injure its usefulness.

The association was formed for a legitimate purpose, not to be used as a club in the hands of a few. It will cause general regret to see it losing sight of its real object, and falling into the hands of politicians.

Between the present-day self-consciousness of ethics and the tricks of the politician, medicine is likely to have a bad time of it. The best thing the individual doctor can do is to steer clear of unwise advisers, would-be leaders and organizers, and saw wood for a time.

That old notion of the elect is exploded, and neither the A. M. A. nor any other organization can revive it by any device, however ingenious.

We hope they will think better of the directory business. There is too much good old Americanism in the breast of the average doctor to stand for subtle and invidious distinctions. He is not to be scared nor compelled. Any systematic effort to do this will end by disrupting the association.

More Caution Necessary.

We are satisfied that there are many thousand habitual users of morphine in this country who have been made such by an unintentional lack of care and thought on the part of the physician.

Whenever a doctor gives a prescription containing morphine to use internally, or by hypodermic injection, he should take care to prevent the patient from knowing what he is using, as far as possible, and in all instances instruct the druggist not to refill any prescription containing morphine.

Doctors, themselves, are not aware of the fact that many patients have prescriptions containing morphine refilled time and time again, long after the indications for the drug have passed away. This continues for weeks, months, years, perhaps, until the patient becomes a helpless victim in the clutches of the morphine habit.

Do not take it for granted that things are going to go right because they ought to. Do your part by cautioning the druggist not to refill such prescriptions, and guard your patient, as far as you can, from a knowledge of what they are using.

There is a certain amount of temptation to the druggist in this matter of refilling prescriptions, as it is just so much business to him, but few will take the responsibility of disregarding the physician's instructions on this point, so that the matter is practically in the hands of the doctor, and we repeat that he can not observe too much caution in a matter which affects the health and welfare of his patients.

It would be a good thing if the physicians of this country could have an understanding on this matter of prescription refilling. If doctors unite in the determination to stop it, it can be done. The refilling of any prescription, unless ordered by the doctor, is a matter of doubtful policy, since drugs are prescribed to meet certain definite indications, and unless these are present, harm rather than good may be done.

Drugs are potential agents, and require to be used with the same skill essential to the safe handling of sharp-edged tools.

There is no doubt whatever about it when it comes to morphine. The prescription simply should not be refilled without fresh instructions from the doctor.

It is needless to dilate on the evils of the morphine habit. Every doctor has been made heart-sick by the spectacle, and only needs to have his attention called to one of the methods by which the habitue is made, to induce him to use every possible precaution to avoid being himself the unwitting instrument of any man or woman's downfall.

Let Me Whisper in Your Ear.

We were very much amused the other day to hear a man tell how scared he was on falling ill in a little village, lest he should not be able to get home to his own physician, but fall into the hands of a country doctor. We remarked to him that some of the best physicians in the world were country doctors. He scouted the idea, but it is true, nevertheless. Locality has nothing whatever to do with the caliber of the physician. Some of the ablest physicians we have ever known have been country doctors. There are plenty of good doctors in the cities, of course, but the mere fact of being a country doctor in no way affects a man's ability. The country doctor is just as well posted as his city brother, and is usually a man of surprising culture and refinement as well.

We take this occasion to whisper in your ear, and say that if the Editor of this journal were sick to-day with typhoid fever, pneumonia, or something else, he would just as soon be in the hands of some country doctors he knows as any city physicians he has met.

The Editor believes he knows what he is talking about. For some years he practiced medicine as country doctor, village doctor and city doctor, and as Editor for thirty-three years of the largest circulated medical journal in the world he has met a good many doctors, and we say right now it is not locality but the man himself who counts.

The good doctor, wherever he lives, is a man of independent character, a man who investigates and decides for himself, who has the courage to give his patient whatever he believes is indicated without

regard to what people with axes to grind may have to say about it. Such a man is not caught by the ethical pretense intended to make him depreciate himself, and so fit him for leading-strings.

Men of this independent stripe, capable, original, self-reliant, are found in both city and country. They are the men who keep the profession from going to the dogs while the organization takes all the credit.

Protect Your Normal Vitality.

Did you ever stop to think of the duty you owe to yourself, your family, and your patients, to protect your normal vitality so that your powers may be always at their best?

How, for instance, can the doctor make a careful diagnosis, or decide on the best treatment when he is in a worn-out, devitalized state? The doctor may, perhaps, ask how is it possible for him to care for himself when he is liable to be called out any hour of the day or night in all weathers. We acknowledge that it is not so easy for the doctor as for some other men, but it is an old saying that where there is a will there is a way, and if the doctor bears in mind the necessity of caring for himself as a very fine piece of vital mechanism, he can do much to keep himself in a normal condition.

The same doctor who writes out a carefully considered diet list for a patient, will take liberties with his own stomach, going past his meal hours, letting his stomach grow faint and weak, then crowd it with indigestible matter. He will take whisky or morphine to keep up his strength by dulling his sensibilities, when a light lunch which he could carry in his pocket would answer the purpose much better. Two or three raw eggs well beaten and flavored with a dash of sherry or a little lemon juice, or a pint of milk chocolate, might be bottled and carried in a pocket to be used as a safe fillip to the flagging energies.

The doctor needs regular outdoor exercise as much as any man. His blood needs oxygenation, his glandular and circulatory apparatus needs the mild stimulation of the walk in the open air. Digestion and assimilation can not be kept normal without it. Air and sunshine are tonics which men, as well as plants, need in order to thrive.

The body contains a very large percentage of water, and this needs to be constantly renewed for health. A stale man is much like any other stale piece of meat—full of impurities. Renew the fluids by drinking plenty of pure water. The kidneys and skin will not do their work well without enough outdoor exercise and an abundant supply of pure water.

Another important thing as necessary to doctors as other men, is mental rest and recreation. The doctor loses much sleep necessarily, and he should cultivate the art of making the mind a blank and catching a nap whenever he can snatch a few moments. He should also think to a purpose about his cases, and then dismiss them absolutely from his mind. Mere worrying over them will do neither his patients nor himself any good.

The doctor will do well to cultivate, as far as possible, any other taste or talent he may have as a relaxation and diversion from the more serious business of his life. There is nothing more soothing to the nerves than music, if the doctor is fond of music, and if he is unable to play an instrument himself, and none of his family are proficient performers, there are a number of automatic instruments on the market which make very satisfactory substitutes.

Whatever you do, find a way to change your thoughts from time to time, and let the hard-worked parts of your brain recuperate.

Keep your vitality up to the normal, that you may do your best work, and get some enjoyment from life as you pass along.

Alcohol for Tuberculosis—Whisky, Beer and Wine Useful for Consumptives, Says Dr. Wiley.

PHILADELPHIA, PA.—Diet as a factor in the prevention and cure of consumption, was dwelt upon by Dr. W. H. Wiley, chief chemist of the Department of Agriculture, before the American Association for the Advancement of Science.

He said that among the food material which had justly attained a high place as nutriment for persons troubled with tuberculosis, is alcohol. Most commonly it is used in the forms of beer, wine,

whisky and brandy, he said. In many maladies, he added, whisky and brandy had apparently been used to great advantage and doubtless such was the case in tuberculosis.—New York *Times*.

Dr. Wiley is right. While no other one agency has been so abused, or done so much harm in the world as the inordinate use of alcohol, yet, in moderation, it unquestionably occupies a high place in therapeutics.

While the careless prescribing of wines and liquors for patients may, and undoubtedly often does, put them in the way of a deplorable habit, there are also times and cases where nothing else will do so much good.

Discretion should be used in the choice of a beverage where alcohol is deemed necessary, and the patient should be cautioned in regard to its use, should have it impressed upon him that it is a medicine, potent, and capable of effects as baneful as good, if improperly used.

Speculative Fever.

Speculative fever is getting to be more common every day. All walks of life are affected by it, especially the professional class to whom theoretical profits appeal more strongly because of their lack of commercial training.

You would be surprised to know how many doctors and lawyers, in receipt of good incomes, habitually keep themselves poor through a desire to speculate in Wall Street. The place is invested with a glamor for those who do not understand its workings well enough to realize how many disappointed hopes, crushed hearts, and ruined lives the speculative fever is responsible for.

The fact is, a man ought not to speculate in any outside business, least of all the stock market. There are risks of a legitimate sort which every man must meet in his own line, but these he is supposed to know enough to foresee and provide for. These will tax his resources sufficiently without adding a burden of anxiety in the shape of unnecessary speculation.

An old writer on this subject has said: "Do not speculate, but if you will, do nothing else." Devote your time and attention to a thorough study of the subject. Investigate the different properties whose stocks you are dealing in, study the money market, the general feeling of buoyancy or depression, keep up with every rumor set afloat. Your broker is not going to worry about you. He will try, in a general way, to protect your interests, but you are only one among many, and he gets his commission whether buying or selling, gaining or losing.

Save your surplus money and invest it in selected real estate, the value of which can not be wiped out in a few hours by a canard started on the street by some inside manipulator of a particular stock. Buying stocks on a margin is a thing no man would do in health, but when the speculative fever gets hold of us, we fairly rush on to destruction.

If you must deal in stocks or in bonds, make a wise selection and buy outright. Then if the market rises and you choose to realize a few thousands, well and good. But that is not speculation proper, and in these days of commercial revolutions, labor wars, etc., no one can tell how long the stock and bonds of even the older and more prosperous corporations will retain their value.

If you put your spare money into carefully selected real estate, it will always be there, and as the population grows more dense, it is certain to rise in value. Whatever you do with it, put it into something you know all about. Keep out of the stock market. Do not let the speculative fever get hold of you. Like drink or cards, or any other vice, it grows on you. If you are so unfortunate as to win at first, you want to go on and on; if you lose, you feel that you must recoup your losses.

The fellow who should invent a cure for the speculative fever would have a very good thing of it, provided the victim could be gotten to take it. The trouble is they so often do not wish to be cured of a complaint so full of lures and excitement.

Truth Will Out.

It is a well-known fact that the truth will always out.

Take the case of Mr. John D. Rockefeller, the Standard Oil magnate, who a few days ago entertained the members of

the Young Men's Bible Class at the clubhouse, No. 11 W. Forty-Fifth Street, New York.

During his talk Mr. Rockefeller turned, smiling, to greet a robust German, and said:

"How is your health now?"

"Excellent," said the man. "I have followed your advice about chewing my food and my dyspepsia is cured."

'I am glad you took my advice," said Mr. Rockefeller, "for your looks show that you have benefited by it. Look at me! I weigh two hundred pounds and am to-day in the best of health. Seeing me now you perhaps don't recognize the lanky, decrepit old form in which a certain paper delights to picture me. But, of course, I suppose many of you don't believe what you see in the papers."

"We certainly don't," came from about six young men at once.

"Well, I believe in the papers," replied Mr. Rockefeller. "Give them liberty and freedom of speech. I believe in liberty. The readers of the papers are intelligent, and they soon sift truth from untruth."

The newspapers usually depict Mr. Rockefeller as a dyspeptic, wan and thin, whereas, according to his own statement, the reverse is true.

It is getting to be a habit with the press to make loose, careless statements, which is to be regretted, as it causes people to lose confidence in newspaper accounts of things. People are finding out that they can not afford to believe what the press tells them unless there is some way to verify the report.

Accuracy of statement should be the ideal of all publications.

Bellevue's Diet Kitchen.

Doctors who visit New York City should not go away without inspecting the new diet kitchen at Bellevue Hospital. It has only been in operation a short time, but already notable effects have been accomplished by the special diet provided for those whose cases are most amenable to a scientific application of the diet system.

Below we give a copy of the diet prescription used by the physician, which shows the various preparations kept on hand, or made to order, as the case may be.

A visit to this kitchen will furnish the doctor many valuable hints on the suitable preparation of foods for the sick. The first thing you notice is the exquisite cleanliness, system, and order which prevail. The equipment for the purpose in view could scarcely be bettered. Only gas is used as fuel, it being easier to regulate. A slow, even heat is used, in most instances, and many of the preparations are cooked in double vessels.

Certain preparations made from the legumes are allowed to stand in water over night, and subjected to a prolonged mild heat, husks and other insoluble matter being removed by straining. The finished product is incredibly smooth, fine, appetizing, digestible, and nutritious.

The pancreatized meat is served in a crumbling condition, very light and porous.

The beef juice is prepared by lightly broiling round s[illegible]k, and cutting in suitable pieces for feeding the press. Its nutritive value might be still further increased, we should think, by adding either the white or the yolk or the whole of an egg. Eggs are not much used in the diet kitchen at Bellevue, however, except for making custards and other light desserts.

Broths, chicken, beef, mutton, etc., plain, predigested, or with the addition of cereals, maccaroni, are prepared with a care which redeems them from the old contemptuous designation of colored water. But few cooks can make a really nourishing and acceptable broth, as the doctor knows to his cost.

Gas has been piped around a circular table, or counter, in the diet kitchen, to utilize space, and burners are attached at regular intervals on which minor dishes are prepared.

The bread is baked in large, crisp loaves, in a moderate oven, so that the moisture may not be all driven off before the desired changes can be fully carried out. Bread so baked is never soggy or heavy.

Cornmeal is used freely in the preparation of a most delicious gruel. Needless to say, milk and cream are consumed in large quantities.

The doctor will quickly see what benefits would accrue to diabetic and Brightic patients, those suffering from a variety of digestive disorders, and that vast number of people who have congenitally weak stomachs, and can not manage the hearty

food which constitutes the diet in ninety-nine per cent of the families of any community.

Malnutrition furnishes the soil of disease and failure. Find a way to nourish the patient properly, and then it becomes a comparatively easy matter to handle the disease. We hope to see the day come when every city and town shall be provided with one or more diet kitchens, equipped to provide patients with the special diet prescribed by the doctor, just as prescriptions for drugs are now filled by the pharmacist.

Physicians who may visit the Bellevue kitchen on a tour of inspection may be assured of most courteous treatment from the pleasant and efficient lady manager of this department.

DIET KITCHEN—BELLEVUE HOSPITAL.

The following articles of special diet can be furnished for patients upon written order of visiting physicians and surgeons:

Orders should be received before four P. M. to be furnished the following day.

		11 A. M.	3 P. M.	REMARKS
BROTH:	Plain			
	Pancreatized			
	With cereal			
	Beef juice			
MEAT:	Dark meats			
	Chicken			
	Fish			
SOUPS.	Clear			
	Cream			
CUSTARDS:				
DESSERTS:				
CEREALS:	Mush			
	Gruel			
LEGUMES:				
BREAD:	Graham			
	Gluten			

Ward__ _____

Date _____ 1905.

_____

Visiting Physician or Surgeon.

_____

At What Age is a Man at His Best?

A good deal of contention has been stirred up by Dr. Osler's statement that a man of forty is beyond practical usefulness, and one of sixty should be painlessly removed from this sphere of action.

No rule can be laid down to determine at what age a man is at his best. One man may be at his best at forty, another at sixty, or even later. It all depends upon the habits, environment and vitality of the individual man.

Some men are born splendidly endowed with health and strength. These men inevitably forge to the front, take on heavy responsibilities, and frequently strain their powers before they reach forty. Another type of man with shrewd and discerning mind, but delicate health, requires time for development. He has got to go slow, learn the science of life and how to make the most of his resources. Such a man often reaches forty before he has done more than make tentative efforts to accomplish something. His best work is done after forty, sometimes after sixty.

Sweeping conclusions, drawn from a few data, are almost always misleading. That is the trouble with Dr. Osler's statement.

Undoubtedly many men who want to begin where their fathers leave off, to reach the pinnacle of success in a few years, do strain themselves to the breaking point, and are mental and physical wrecks at forty. No one knows this better than the doctor who is every day called on to make good the ravages caused by fierce and incessant competition.

Then, too, the habits of a man often prematurely age him. We all know, for instance, that even the moderate use of alcohol produces degenerative changes in the tissues comparable to those of old age. The vital organs of the regular moderate drinker are older than those of the abstainer, and his expectation of life is less. Such a man is really older at forty than the abstainer is at sixty, or even seventy. And many men are not moderate in their use of alcohol, or temperate in any other respect.

The majority of people, especially those who have fine physiques, and who, consequently, do not suffer at every indiscretion, live constantly at a high pressure, eating, drinking, smoking, keeping late hours, squandering vitality thoughtlessly in many ways until they fetch up with a crash, and are never good for much afterwards.

A delicate man, on the other hand, early learns, through suffering, to economize and conserve his vitality. He regulates and systematizes his life, avoids everything likely to injure him, builds up and fortifies himself in every possible way. He is pursuing a diametrically opposite course to the man, who, at the

start, had every advantage of him. To judge both by the same rule is absurd.

So, we repeat, the question at what age a man is at his best is an individual one, depending upon the habits, environment and vitality of the man.

[Written for the MEDICAL BRIEF.]

Reminiscent Chats.

BY OLD DOC.

Hello, boys! how are ye to-day?

You've all heard that old saying "One man's meat is another's poison." Well, it appears that every man's meat is to some extent a poison. At least, there are certain poison bodies present in flesh meats and meat extracts, glandular organs, such as liver and pancreas. They are also present, in less quantity, in oats, potatoes, onions, asparagus, and pulse foods, and act injuriously on weak constitutions, or where digestion is not so good.

These poison bodies are somewhat stimulating, and make the work of ridding the system of its waste heavier. Foods, such as eggs, milk, cheese, butter, sugar, white bread, rice, lettuce, cabbage and cauliflower, are free from these poisons, and a diet selected from these articles is the very thing for persons whose digestion is weak and who suffer from chronic malnutrition.

Similar poisons are found in tea, coffee and cocoa, but they pass out of the system quicker, and unless used to excess are not so hurtful.

Say, boys, don't forget that constipation is a very important factor in causing gout, rheumatism, and similar diseases. The best way to cure it is, of course, by diet and exercise. Medicines relieve constipation, but don't often cure it. When the digestion is good, the bowels will empty themselves regularly, and without trouble. Don't fail to go into the question of diet, including how much water is taken in each twenty-four hours, insist on open-air exercise, on the patient's not keeping Nature waiting for any reason, and have a look at the feces for inside hints as to what is going wrong.

Say, boys, the juice of chelidonium majus is said to remove corns and warts. Has anybody in this crowd tried it for this purpose? This remedy has a decided action on the gall-ducts and bladder, but is harsh, and should not be used except in chronic and depressed states affecting these organs.

A bright fellow can work wonders with a reliable preparation of cactus grandiflorus in all those states caused by weakness and derangement of the heart's action or the vaso-motor nerves. It steadies and strengthens a weak and irritable heart, and is of use in many neuralgias due to imperfect circulation in the parts. Angina pectoris and tic douloureux, two very stubborn and painful diseases, are benefited by a good preparation of cactus. The heart symptoms of the dyspeptic and the smoker yield to it. It's great to sustain the heart in fevers, infectious diseases, pulmonary troubles, and wherever the struggle is a long or a hard one. Be sure to get a good preparation, and you will be pleased with your results.

Boys, caulophyllum is better than ergot to keep the pains steady and regular in childbirth. I use a tea, and give it freely. The dose of the fluid extract is about half a teaspoonful, given every hour, or oftener if needed. It makes delivery easier and quicker, and *post-partum* hemorrhage is the exception where it is used.

Say, asparagus is a first-class article of diet for those whose kidneys are sluggish, and fail to throw out the normal percentage of solids. By the time this BRIEF reaches you, this vegetable will be in the market. Give such of your patients as need it a hint of its medicinal value.

Hydrastis is an old-fashioned but useful remedy when the veins are feeble and dilated. In varicose veins, hemorrhoids, chronic ulcers, and similar states, hydrastis will do good work for you.

Say, boys, remedies directed to lessening spinal irritability and weakness are of the greatest value in many cases of diabetes and albuminuria. When you get in a hole, or whenever there are spinal symptoms, give the two viburnums and a good fluid preparation of scutellaria a thorough trial. I'll wager you will learn something to your advantage.

Give sulphur a trial in stubborn parasitic diseases, whether situated internally or externally.

Myrrh is a remedy of much value in diphtheritic cases where the mucous

membranes are of a dusky hue, and the discharge is very offensive. The dose should be small, about two drops of the tincture in a little glycerine every two hours for a child of seven.

Say, belladonna has vitalizing properties, and often acts very nicely, especially in cases of subnormal temperature, and general depression.

Well, so-long, see you later.

[Written for the MEDICAL BRIEF.]

Predetermination, Revelation and Treatment of Disease by Blood Diagnosis.

BY ROBERT LINCOLN WATKINS, M. D.
New York.

(Continued from page 327.)

Case 4. Apoplexy.—Mr. W. gave the following history: His father died of apoplexy within one-half hour from the beginning of the attack. Others of the family had died in the same way. It seems inheritable. The patient had been suffering for a year and a half from a severe neuralgia in the left side of the face, fullness and pain in the head, insomnia and vertigo.

The blood revealed embolic fibrin-clots. Mr. W. was told his danger, which he suspected. He willingly submitted to a rigid diet and appropriate medicine for the absorption of the clots. He began at once to improve, continuing to do so for two months, when he experienced a relapse. The pain remained a few days, but the same treatment two weeks longer fully cured him.

In apoplexy, fresh blood always shows characteristic products, long before the patient experiences any symptoms.

Case 5. Tuberculosis of the Lungs.—Mr. M., twenty-four years old, was brought to me eight years ago by his father, for examination and treatment. he had suffered for a year with a cough, excessive expectoration and night sweats. Consumption was in the family. The blood examination disclosed this disease in its second stage, corroborated by physical examination of the chest. After treatment demanded by his case, he fully recovered in six months. Other afflicted members of the family followed this treatment and were materially benefited.

Case 6. Consumption of the Bowels.—Mrs. W., of California, sixty years old, complained of diarrhea and shortness of breath. Her blood showed chronic consumption of the intestines. The photomicrograph showed the adhesiveness and scarcity of the red cells and excess of the white cells. She materially improved in four months. A picture of the blood three years later showed a reduction of the white cells with an increase and less adhesiveness of the red. During the last six years she has traveled much in this country and abroad.

Case 7. Mistaken Consumption.—Ten years ago I was called to examine a physician who was confined to his bed with a cough, pain in the chest, expectoration and fever, and he feared consumption. The blood revealed no tuberculous matter whatever. He was carefully treated, recovered in a few weeks, and is now living in Harlem, attending to a large practice.

Case 8. Syphilis.—Fourteen years ago, a friend from Providence called at my office complaining of a severe headache, which I soon relieved, and according to custom examined a specimen of the blood. There appeared to be present the syphilitic germ; but being a well-known friend, the truth was doubted and another specimen requested. Closer examination revealed the same indisputable evidence, and after casting a searching look at the patient, the specimen was again studied. "Why do you look at me that way?" he suddenly asked. The answer was, "When did you contract syphilis?" "Why, I never had it," he replied. A further examination only confirmed the others, and on being so informed, he admitted it. I advised him to begin treatment for syphilis, on his return to Providence. He was dissuaded therefrom by several physicians, who disagreed with my diagnosis and also with each other. In 1899 he wrote for my opinion of a growth extending half way down the side of the tongue. Several physicians diagnosed the case as tuberculous, while others advised amputation of the tongue. Despite the above, I wrote him to be treated for syphilis, which he did, and in 1900 was fully recovered.

Case 9. Eczema.—Mr. C. came to me on the recommendation of a friend. He had suffered five years from an incrusted eruption on both the palm and the back of the right hand. The man was a carpenter, and, being obliged to use his hands continually, had been wearing a glove, not only during work, but to cover the disfigurement. It was so disgusting that a skin specialist had photographed it. Several prominent physicians had treated him with no result. The blood examination revealed presence of inherited syphilis and eczema. My treatment consisted of medicine to drive the disease out of the blood, together with a carefully regulated diet. The patient showed immediate improvement, and in two weeks laid aside his glove. In two months he was entirely cured of the eruption.

Case 10. Eczema.—No. 9 reminds me of the worst case of eczema I ever saw. It was that of a woman twenty-four years old, who was brought to my office ten years ago, by her mother, on the recommendation of a prominent physician. She was heavily veiled, for she was that horrible to look upon that for three months she had not ventured to leave her home. The eruption completely covered her from head to foot. The blood revealed eczema but no syphilis, and the cells were deficient both in number and quality. A photograph of the blood was taken, as usual, at the beginning of the treatment. She was placed under a competent nurse, who was given military orders concerning the treatment, and the blood was examined from time to time to note progress. Although the case, on account of many complications, was very exceptional, it was fully and forever cured in six months.

Case 11. Rheumatism. Fat. Paralysis.—Mrs. A., who was suffering from Rigg's disease of the gums, was sent by her dentist for a blood examination. Her height was five feet and two inches, and she weighed two hundred pounds. The blood showed free, fat globules and amorphous urates of rheumatism. This indicated apoplexy, rheumatism and heart paralysis. She had never yet had any symptoms of these diseases. Two months later I treated her for acute rheumatism and heart trouble. After nine weeks, the urates and fatty globules had disappeared and her weight reduced to one hundred and seventy pounds.

Ninety-five per cent of the human family show rheumatism in the blood, with or without symptoms.

20 West Thirty-Fourth Street.

[Written for the MEDICAL BRIEF.]

A Practical Insole.

BY FREDERIC GRIFFITH, SURGEON,
Fellow of the Academy.
New York City.

The homely truth in the saying that many people dig their graves with their teeth has its counterpart in the frequency with which dangerous diseases, particularly of the respiratory tract have their beginnings traceable when carefully studied to disturbance of the circulation from either a chilling or a condition of continuous coldness of the feet. While the amount of perspiration from the sole of the foot varies in different individuals, there are very few who will not show a perceptible moisture in the sock or stocking sole after a brisk walk, or a few hours' wear. A factor not generally noted by people who say that their feet never perspire is that of atmospheric temperature and degree of humidity, which acts upon the invisible perspiration from all of us. Insoles, as made, are of divers materials, and have in view either elevation of the wearer's feet from the ground without external thickening of the shoe sole, or act as absorbent.

A simple, practical method of insole manufacture for individual use is as follows: Place the stockinged foot upon a folded newspaper, and with the point of a scissors outline the foot. By cutting out eight to twelve thin, absorbent insoles are produced which may be inserted one at a time or in twos and threes, depending upon the amount of moisture to be taken up. The papers may be changed daily, or more frequently, depending upon the length of time the comfortable feeling which their use imparts continues.

49 East Sixty-Fourth Street.

THE MEDICAL BRIEF

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[Written for the MEDICAL BRIEF.]

The Principles and Practice of Embalming the Dead.

BY JOHN GEORGE GARSON, M. D. (EDIN.),

Vice-President of the Anthropological Institution of Great Britain; Honorary Corresponding Member of the Anthropological Societies of Paris, Moscow and Rome; Adviser on Identification to the Home Office; Late Swiney Lecturer to the British Museum, and Lecturer on Comparative Anatomy to the Charing Cross Hospital. London, England.

[No. 1.]

During the time which has elapsed since man first arrived at the stage in his psychological development of showing regard for the body of his dead, two main objective ideas appear to have dominated his mind, with respect to the disposal of the corpse. The first and oldest and, also, undoubtedly the most widely-distributed of these is to bring about dissolution of the body under favorable conditions, while the second is to preserve it from the natural process of decay which follows the extinction of life. The former object has been most usually effected by interment in the earth, whereby a passive disintegration is brought about without the loathsome and offensive conditions being obvious which are attendant on decomposition in air, or on the surface of the ground.

From earth burial to cremation is but a step, as in the latter the same idea holds as in the former, but much more rapid disintegration of the body into its formative elements is the chief object in view. There are, it is true, several other subsidiary ideas often entertained regarding it, such, for example, as the purifying influence of fire, and the like. The practice of thus rapidly reducing the dead body to ashes is known to have existed from about the middle of the bronze-age period, and has been extensively adopted in many parts of the world from times of antiquity to the present day as a means of disposal of the dead.

The second idea, that of preserving the dead from decay, is the antithesis of the first. And although it can claim considerable antiquity it has only been carried into practice as a social custom in comparatively limited areas, but these are sufficiently isolated from one another to indicate that it has been evolved from several independent centers. We find it carried out in its simplest form by exposing the corpse to the desiccating influence of the sun and wind till the aqueous fluids of the tissues have evaporated, a method which is still practiced in some parts of the world by savage tribes. In other countries, where the climatic conditions are unfavorable for this method or for other reasons it is impracticable, artificial, or more correctly, chemical, means have been adopted to effect the same purpose. These are known to us as *embalming*, so named from the aromatic substances formerly used in the process.

It is beyond the scope of this paper to trace the history of embalming or to enumerate the various processes devised for the purpose by the nations, ancient and modern, who have practiced it. I may, however, state that from the time of the earliest dynasties, dating as far back as about five thousand years B. C., and onwards, it was employed on a large scale by the ancient Egyptians, and formed a part of their cult. Their methods of performing it improved till it was brought to a high degree of perfection, but as it ever continued to be in the main a process of pickling (the physiology of the circulation of the blood being unknown to them), it always required much time and labor to effect. The custom of embalming also extended to other neighboring nations, amongst whom may be mentioned the Assyrians and Persians, but they never attained the same degree of proficiency in the art as the Egyptians. On the other side of the Atlantic the ancient Peruvians adopted it, and reached considerable proficiency in the art. On the extinction of these ancient civilizations the practice of preserving the corpse from decay was discontinued in these countries, and, but for the writings of classical authors and specimens of the art still extant, the methods then employed would have been entirely lost to us.

Although it is improbable that among modern nations the custom of embalming the dead will ever become as commonly practiced as it was in the halcyon days of the ancient Egyptians, there will always be a certain number of cases in which it is required. Among European nations it has been the custom for many centuries past to deposit the remains of crowned heads and other persons of high rank and importance in mausoleums or vaults, and in the present day when large fortunes are not uncommonly made in commercial enterprises, this mode of disposal of the dead is, with increasing frequency, adopted by rich members of the community.

In cases of mausoleums and vault burials the body is first placed in a wooden shell, outside of which is a metal coffin, hermetically closed, and this last is encased in an outer coffin of oak or some other wood. Formerly the body was always embalmed before being placed in the coffin, but more recently the practice seems to be very often to trust to the coffin being air-tight to prevent putrefaction and secure the preservation of the body, decomposition being arrested as soon as the available oxygen in the tissues of the body itself and in the coffin has become exhausted.

In England the metal coffin is made of sheet lead weighing four pounds to the square foot and measuring only one-sixteenth of an inch in thickness. Upon the efficient soldering of the joints and the imperviousness of such a sheet of metal to the pressure of the gases of decomposition, which are at first generated within the coffin, depend not only the effective preservation of the body, but also the sanitary condition of the building in which the remains are deposited. That this pressure is considerable is demonstrated by the fact that sometimes the lead coffin becomes what is termed "blown," that is to say, bulged out at some particular point, and, lest a burst should occur, has to be treated by puncturing it to allow the pent-up gas to escape, after which the puncture is filled up by a drop of solder. A "blown" coffin shows that the joints of the metal were thoroughly well-soldered and the sheet-lead out of which it was made was thoroughly sound and impervious, otherwise there would have been leakage of the gas and the coffin would not have become "blown." It is well known, however, that imperfections, not detectable with the naked eye, are liable to be present in all thin-rolled metal sheets and may also occur in soldering of joints. From either or both of these sources an escape of the gases of decomposition is liable to take place, and the serious danger of causing an unsanitary condition of the place of sepulture is incurred quite needlessly, because the generation of the gases, the cause of the evil, may be entirely prevented by embalming the body in the first instance. I, therefore, very strongly urge that in all cases where burial of the dead is to be made in mausoleums or vaults the body should be thoroughly embalmed, as well as placed in a coffin rendered air-tight. By this means alone can the sanitary conditions which are necessary to ensure im-

munity from danger to the health of the living, be adequately secured, and for this reason embalming should be much more frequently employed in these cases than it is at the present day.

It sometimes happens that death unexpectedly occurs when an individual is visiting some distant country, and the relatives may determine that the remains shall be taken to the home of the deceased for interment, to reach which a journey by sea and land, requiring several days or weeks for its accomplishment, may be necessary. In such cases it is quite as important as in mausoleums and vault burials that the body should be thoroughly embalmed, in addition to being placed in a coffin which has been hermetically sealed. Indeed, it is much to be desired that the shipping companies should insist on reliable medical evidence being supplied to them that both these conditions have been fulfilled before receiving a corpse for shipment from England to America, or between any two ports situated even in temperate latitudes, when the journey exceeds two days. It is true that many ships are fitted with refrigerating rooms and apparatus capable of maintaining a sufficiently low temperature to prevent any putrefactive changes taking place in the body during the voyage, which might be utilized without resorting to the measures just recommended, but it must be remembered that decomposition always occurs rapidly after a body is removed from the cold, and if the funeral can not take place immediately after this is done disagreeable consequences are certain to arise. Embalming should, therefore, never be omitted even when death has occurred at sea and no air-tight coffin is to be obtained; though in such an emergency the cold chamber would be useful if available at the time.

There are many instances where it is necessary to prevent the occurrence of decomposition only temporarily, so as to make it possible to keep the body longer than could otherwise be done without inconvenience and detriment to the living, until arrangements made for its interment or cremation can be carried out, or to enable relatives of the deceased to come from a distance to attend the obsequies. This is especially likely to occur in hot weather and when death has resulted from causes well-known to be followed by rapid decomposition of the body. In such cases embalming is required, but the process need not be carried out to the same extent or the same chemical substances employed as when permanent preservation of the body is the object in view.

Embalming, as practiced at the present day by competent persons is much more simply and expeditiously performed than in ancient times, only a few hours at longest being required now, instead of about two months, as Herodotus tells us was taken by the Egyptians to produce their best work. There is no violent manipulation of the body required now, as was formerly necessary, when the removal and destruction of the thoracic and abdominal viscera and of the brain were the preliminaries of the procedure by the Egyptian methods. Upon this score it is sometimes necessary to reassure relatives of the deceased, who often imagine that embalming involves considerably more interference with the body than a *post-mortem* examination of the various viscera. To lay open the thorax and abdomen would be to seriously impede the modern operation of embalming and render it much more difficult of performance. So much is this the case that when a *post-mortem* examination is required as well as embalming, the former should not be done until after the embalming process has been completed, except in medico-legal cases, where there is a suspicion of poisoning, when it is absolutely necessary to do the *post-mortem* examination first and make the best of the unfavorable conditions resulting from it for the embalming, as will be later explained.

The best period to select for the operation of embalming in temperate climates is about twenty-four hours after death, when, as a rule, rigor mortis has to a great extent passed off and the tissues are somewhat relaxed. When the weather is hot or decomposition threatens to set in early, the operation may be done sooner. The presence of putrefaction is not, however, a real hindrance to embalming, which will not only at once stop any further putrefactive changes from occurring,

but materially improve the appearance of the body. Whenever, therefore, the physician or surgeon observes any indication of decomposition approaching more rapidly than usual before the date fixed for the interment, it will be well for him to advise that steps be taken to arrest it by having embalming done in a form suitable for the case, rather than to direct, as is often done, that the coffin containing the body be closed. In a case of this kind a very modified system of preservation will suffice to render the corpse inocuous for a few days and make the features retain their natural appearance and color.

Crude preservative materials, such as bitumen, resins and herbs, are no longer used in embalming, these having been replaced by the alkaloids and essential principles they contain, and others which modern chemistry has made available. The chemicals used are distributed to and brought in contact with the tissues of the body by being dissolved in a suitable medium which is made to pass through the whole series of ramifications of the vascular system, in like manner as the blood coursed through them and brought with it nutritive pabulum to the tissues during life. The preservatives are thus brought into contact with the tissues, particularly the muscular tissues, much more rapidly and effectively than was the case with the ancient methods. The knowledge we now possess of the action on the tissues of various chemicals which are available as preservatives enables us to attain the object we have in view with precision, and to avoid using such as are unsuitable by reason of any undesirable secondary effects they may produce. Thus, some very effective preservatives cause such rapid shrinking of the features that they can not be used in cases where it is necessary to retain a natural, placid expression, unless their action be restrained and modified in this respect. What preservatives should be employed in a given case, as well as their strength and the proportions the several ingredients of an embalming fluid should bear to one another, will depend entirely on the circumstances of the case, the immediate or more remote conditions it is desired to bring about, and the direct object for which the operation is undertaken. In any case it requires that the operator shall have a competent knowledge of the chemicals which he employs and of their actions. No less does it require for its performance that the operator shall possess a knowledge of the anatomy of the whole body and of the pathological changes in the organs which the cause of death is likely to have produced, in order to meet the various exigencies which may arise. To practice embalming with skill and success requires the same kind of knowledge and judgment as is called for in the performance of a surgical operation. The kind and extent of knowledge required for its practice, moreover, can only be acquired after years of training in medical studies, and is, therefore, only possessed by physicians and surgeons skilled in anatomy and the other subjects of their profession. I would lay special emphasis on this point, from the fact that it is not uncommon in London and elsewhere to see the advertisements of undertakers who profess to practice embalming, and even have the audacity to approach physicians and surgeons with the view of obtaining employment in cases where it is required, often producing "diplomas" for embalming which they have obtained after what they are pleased to call instruction and examinations in the subject, as indications of their competency, and stating that they use the preservative fluid of this or that college of embalming, or other trading society in their work. They have neither the training nor the knowledge required for the work, and their employment can only result in disappointment and discredit the practice of embalming. It is to be regretted that the members of the medical profession have, of recent years, not been as attentive to their own interests and, especially those of clients, as they should have been in the matter of retaining in their own hands the treatment of all cases where the prevention or postponement of decomposition is required, and have thus permitted the intervention of unqualified persons to take place through their omission. The services of the medical attendant should not cease on the extinction of life of his patient and the issue of a certificate as to the cause of death. He is *par excellence* the authority who can with

knowledge advise the relatives of the deceased as to the condition of the body between the period of death and its final disposal and to take steps or see to steps being taken to prevent it from becoming noxious in that interval; also, to preserve it for a longer period if that be required, just as it is for him to carry out a *post-mortem* examination, should that be desired. As the approach of decomposition must always be a very repugnant thing for sorrowing relatives to note, and the duty of doing so is only too willingly delegated to some one else, he may with assurance take it for granted that his services and advice in such matters and at such a time will be as highly appreciated as his attention to his patient before death. Should he, for any cause, feel undisposed to undertake the actual operation of embalming or applying preservatives to the body, the services of a qualified medical specialist are always available to do the work, as they are to make a *post-mortem* examination. Under all circumstances it is most reprehensible that the undertaker should be permitted to give advice and perform operations which should be exclusively done by members of the medical profession.

Whether the operation of embalming is undertaken for temporary or for permanent preservation of the body, it should include the introduction into the tissues through the vascular system of a suitable preservative fluid and the external application of the same to the surface of the body, the latter being necessary to counteract the tendency which the epidermis has to separate from the dermis. Any gas or fluid which may have accumulated in the abdomen, thorax and elsewhere should be removed, and some preservative fluid injected in its place. To enable the different parts of the process to be performed with facility, the body should be placed on a long, narrow table, such as is used for ordinary surgical operations. If, however, this is not possible and nothing better can be obtained, the lid of the shell or coffin, supported on trestles or otherwise at a convenient height, for the operator, may be utilized for the purpose. The operation should not be attempted with the body lying on the bed or in a coffin.

The introduction of the preservative fluid into the vascular system is effected by exposing and opening one of the larger arteries, situated near the surface of the body, and inserting into it a metal cannula, to which is attached a tube, through which the fluid is to be injected. The artery sometimes selected for this purpose is the brachial in the upper third of the arm, but in the majority of subjects the femoral in Scarpa's triangle is most suitable, and is, perhaps, the artery more frequently chosen. In my experience, however, it is preferable in all cases where the body has to be thoroughly embalmed to select the abdominal aorta, just below the umbilicus. At this spot it is easily reached by a median incision of about seven or eight centimeters long through the anterior abdominal wall from which, in the normally-collapsed state of parts after death, it is separated only by a short interval. The advantages gained by selecting this artery are its large size and the variety of other purposes served by the external incision made to expose it, whereby the operation is facilitated and rendered more effective. Thus, while the preservative fluid is entering the artery the condition of the inferior vena cava, which lies immediately to the right of it, can be seen, and if the flow of the injection in the capillaries be impeded by venous congestion, this can be at once relieved. Again, any fluid or gas in the abdomen and its hollow viscera, or in the thorax, can be evacuated directly by means of an aspirator needle introduced through the opening, and preservative solution injected forthwith into them. If the opening be neatly sutured afterwards, little more external trace of it will be visible than would have remained if the femoral had been selected.

The method of introducing the preservative fluid into the artery selected requires the careful consideration of the operator. The tissues being now dead matter and, therefore, no longer endowed with vital properties, are not in the same condition as they were during life. The blood-vessels are less able to bear a strain equal to that exerted upon them by the normal blood-pressure during life; this is particularly the case when they are in an atheromatous condition, as frequently

happens in old people, or when the tissues in which they are embedded are softened or broken down by disease, and are, consequently, unable to give them the usual support. The resistance to the establishment of the flow of the preservative fluid through the dead body is also a factor never present in the living, and the risk of rupture of the blood vessels during the process is proportionately increased, according to the force exerted to propel it and the rate at which it is made to travel, particularly if the pressure be suddenly or unevenly applied. A rent taking place from any cause in an artery of even a medium size is a serious impediment to the successful distribution of the preservative fluid and generally gives much trouble. In order to get the best results, therefore, it is of great importance to inject the preservative fluid with as low and continuous a pressure as possible. This being so, it is obvious that the syringe ordinarily used to inject bodies for the dissecting-room is not suitable for the purpose of embalming; firstly, because there is no means of gauging the pressure which is being exerted by it, except the very rough one of the feeling of resistance offered by the fluid in the syringe to the onward progress of the piston; and, in the second place, because it is impossible to keep up a slow and regular pressure with such an apparatus for the period necessary to get the fluid properly diffused through the tissues of the body, owing to the muscular fatigue which, sooner or later, affects the arms of the operator, causing him to act spasmodically. The continuous and regular pressure required is best obtained either by compression of the air above the surface of the preservative fluid in a closed receptacle, such as a Wolfe's bottle, connected at its base by a tube with the artery through which it is to be introduced into the body, or by utilizing the force generated by the fluid itself in flowing from the receptacle placed at a higher level to the artery situated at a lower level. Each plan has its advantages and disadvantages, and the adoption of the one or the other must be determined upon by the operator, according to the conditions under which the operation has to be performed. The requisite air-pressure is obtained by pumping atmospheric air into the receptacle containing the preservative fluid by means of bellows, or a hand-pump, such as that used for the inflation of pneumatic tires, worked slowly and regularly. To obtain enough hydrostatic pressure all that is necessary is to raise the vessel containing the fluid, which should be open at the top, and have the tube attached to an opening at the base, till the resistance of the tissues is overcome and the fluid flows slowly through the blood-vessels. Whether the one method be adopted or the other there should be introduced in the course of the stream of fluid, as it passes from the container to the artery, a gauge of some kind to indicate the force with which the preservative is entering the body. For this purpose a simple glass U-tube containing mercury and attached to an upright support, on which is marked a graduated scale of units of pressure, acts as satisfactorily in practice as any of the more complicated and expensive forms of fluid-pressure gauges.

To enable the operator to observe the rate at which the fluid is entering the system the vessel containing the preservative fluid should be graduated. It is important for the operator to watch both the rate and the pressure at which the fluid is entering the system, because a sudden increase of the former, with decrease of the latter, is a certain indication that rupture of one or more of the arteries has taken place, and that the fluid is being extravasated into the surrounding tissues or into some cavity, instead of circulating through the vascular system, as a whole.

[Written for the MEDICAL BRIEF.]

Dental Anesthesia.

BY CHARLES W. GLASSINGTON, M. R. C. S., L. D. S.,

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I am frequently asked which is the best anesthetic for dental operations. A few years ago one would not have hesitated in saying nitrous oxide gas, and even now the big majority of minor dental opera-

tions, *i. e.*, the extraction of two or three teeth, are done under this anesthetic. Where, however, more time is required for the removal of a number of septic roots, the administration of gas and oxygen, gas and ether, ethyl chloride, or the A. C. E. mixture, must be considered.

It will, perhaps, be noticed, and I trust it will be, that I have omitted chloroform. This drug is one that should never be administered for dental operations, unless under very exceptional circumstances, and for the following reasons:

1. Chloroform should be given in the recumbent or semi-recumbent position. This position places the dental surgeon at a disadvantage, as the sitting position is the most convenient for dental operations, and, moreover, should a tooth or root slip from the forceps it is more liable to drop to the back of the throat.

2. From a moral point of view, is it right to administer an uncertain drug, like chloroform, for a dental operation when we have reliable anesthetics like nitrous oxide and ether, at our command?

It has never yet been decided in a court-of-law in England whether a licentiate of dental surgery is legally qualified to administer nitrous oxide gas. That he is perfectly capable of doing so goes without saying, for during his curriculum at a dental hospital the dental student not only sees it given, and operates under it, but has *practical* instruction given him on the different modes of administration. On the other hand, the medical student seldom takes advantage of the dental department of his own hospital to be taught how to administer N_2O properly for purely dental purposes, and he is launched into private practice with very vague ideas on a subject which can bring "grist to the mill." In London itself it is easy for the dental surgeon to secure the services of an anesthetist who knows his work in all its branches, but in the provinces such men are not always obtainable, and in many cases the dental practitioner finds he has to teach his medical confrére how to administer nitrous oxide gas.

Frequently a patient (generally a lady) will say: "If I am to have gas, my own doctor shall give it to me." To this the dental surgeon agrees and when the appointment is made and kept, he may find one of the following conditions:

1. That the doctor is quite *au fait* with dental anesthesia, has brought his own apparatus, and everything passes off satisfactorily.

2. That the doctor knows nothing about the administration of nitrous oxide, but takes the dental surgeon into his confidence and tells him so. In a case like this there is no occasion for the dentist to "give away" the doctor before his patient. By judicious maneuvres she need never know her medical attendant is unacquainted with the administration of nitrous oxide.

3. The worst condition of all is when the doctor pretends he knows all about the administration and proceeds to try to put the patient under the effects of nitrous oxide. The results in such a case are disastrous for a successful operation. The dental surgeon can operate ever so much better, even if he both administers the gas and extracts, providing he has somebody to steady the head, rather than have a man who thinks he can administer nitrous oxide, but can not. Such an administrator does not discriminate between giving enough or too much gas (generally it is the former), and he does not know of the judicious admixture of air. Compare this administration with that of a Hewett or a Buxton, and ask any dental surgeon which he would prefer to operate under.

For prolonged dental operations nothing beats gas and ether. The ideal dental anesthetic for children is the combination of gas and oxygen, yet how few medical men know how to administer it. There is no stertor, no jactitation, no cyanosis, no danger. The child goes off into a quiet sleep and the mother can be in the room during the operation without being alarmed in any way.

Of the value of ethyl chloride as an anesthetic for dental operations I can not give an expert opinion, as it is comparatively a new drug for this purpose, and I have not seen it administered a sufficient number of times to warrant me saying much about it, for or against its use. In those cases which I witnessed there was certainly nothing against it. It has the advantage of not requiring any very elab-

orate apparatus, and the anesthesia produced is certainly longer than that of nitrous oxide gas.

It is said, however, the after effects are not so good as those of N_2O (which are generally *nil*), vomiting, headache, giddiness and collapse having been frequently noted. The difficulty, to my mind, with this drug is to know when the patient has had enough, as in some cases the usual symptoms of narcosis have been absent.

Having prefaced my remarks by stating that nitrous oxide gas is generally given in the big majqrity of minor dental operations, perhaps, it would be as well if I pointed out a few practical hints (after twenty-five years experience), which may be useful.

Before administering the anesthetic the *administrator* should always have the following articles close at hand:

1. Mason's gag.
2. Tongue forceps.
3. Nitrite of amyl.
4. Sponge holder, with aseptic sponge,

He should see there is no denture in the mouth, and no impediment to free respiration, such as a tight collar, corset or belt.

With regard to corsets, it is sometimes a delicate matter with young ladies unless the dental surgeon has a nurse or female attendant, and it is best when the appointment is given to advise the patient or tell the mother to see the corsets are either very loose, or what is better, not worn at all. It is purely a matter of delicacy and tact, which is generally appreciated by the mother.

Unless the tap of the gas bottle is thoroughly turned off after use the gas will escape slowly, but surely; therefore, it is always best to ascertain whether there is sufficient gas, even in a comparatively new bottle, before commencing. This can easily be done by weighing it. Some administrators prefer to stand on the left side of the patient. I think it much better for them to be behind the dentist's chair, as in that position should the patient suddenly struggle and try to pull the face-piece away, the administrator has a much better command over his apparatus and the head of the patient. At the end of the administration should the dental surgeon require to come behind the chair when operation is on the right side of the mandible, the administrator can quickly move away.

During the operation the administrator can be of great help to the operator by

1. Steadying the head of the patient.
2. Applying Mason's gags, when required.
3. Hooking out a root or piece of a tooth dropped into the mouth.
4. Steadying the mandible when lower teeth are being extracted and so preventing a possible dislocation.

Before the administration of the anesthetic the dental surgeon should have made up his mind which tooth or teeth he intends to extract. If he is in any doubt about any root he should be careful not to prick the gum with a probe when examining the mouth. The choice and position of the mouth prop entirely rests with him, but should he be operating on both sides of the mouth he should advise the administrator on which side he may require the Mason's gag applied.

The too forcible application of Mason's gag has been known to dislocate one or two lower teeth, which may or may not have been affected with pyorrhea alveolaris. In the latter case the operator should point out the condition to the administrator and advise care, should it be necessary to use this instrument.

The operator should also remember when removing lower molars he will be pressing the tongue so far back that respiration may be impeded. This will certainly prolong the anesthesia, but the administrator must see it is not carried too far and the operator should at once cease to extract when told to, or at all events remove his fingers from the patient's mouth and allow a free passage of air.

In cases of trismus the operator should always endeavor to try and get something between the teeth before the administration is commenced. This will facilitate the application of the Mason's gag when the face-piece is removed. The dental surgeon should always operate on the lower teeth first, where both upper and lower teeth are to be extracted at the one operation. The only exception to this is when an upper tooth is the absolute cause of pain. He should never leave a root or

portion of a tooth free in the mouth, but at once remove it before any further extraction is proceeded with. The smaller the piece the more likely it is to be inhaled into the larynx.

It should be remembered that anemic patients are very quickly anesthetized with N_2O, and as quickly come round. Gas and oxygen are much better for such patients.

Epilepsy is no bar to the administration of nitrous oxide. In fact, a fit might be caused by extracting a tooth in an epileptic if an anesthetic is not given. Pregnancy is seldom, if ever, affected by this drug, but extra care should be taken if the patient is known to have miscarried.

Beyond the administration of nitrous oxide gas, pure and simple, there is that of mixing it with air, or combining it with what is called "to-and-fro breathing."

In the former the judicious admixture of air (with the ordinary face-piece in use) towards the end of the administration, will certainly prolong the anesthesia for a few seconds (which are often very valuable to the dental surgeon). When this method is proceeded with the question arises when shall the administrator start giving air? My own experience is at the first sign of stertor, providing you are absolutely sure *every part of your apparatus is air-tight*. By this method one somewhat approaches the effects obtained by an administration of gas and oxygen.

As regards the "to-and-fro" method, this, I think, should rarely be used unless the administrator finds himself running short of gas and then only towards the end of the administration. Occasionally the gas bottle will leak through the tap, not being screwed up at the previous administration, and if the administrator starts on his work thinking he has plenty of gas he soon finds out his mistake, and if he has not a second bottle attached and workable, he must have recourse to the "to-and-fro breathing," to complete the anesthesia. This is done by turning the stopcock right over and stopping the valve-action of the apparatus. I once had to do this when the india-rubber tubing blew off from the union-piece. Fortunately, it was very flexible rubber and I was able to compress the tube with the thumb and finger of my left hand, at the same time the operator quickly turned the stop-cock. For prolonged dental operations, say where a number of teeth and septic roots have to be extracted at one sitting, the combination of gas and ether can not be beaten. In such cases the ordinary procedure is carried out in the administration, as if a big operation were about to be done. That is to say, a Clover's apparatus is used. The patient is first brought under the influence of the nitrous oxide gas, to overcome the unpleasantness of the ether, when the latter is turned and continued with until narcosis is complete. This, as a general rule, will give the dental surgeon ample time to do all he wants. In certain cases, however, this complete ether anesthesia is not required, but only a certain amount of ether wanted to prolong the effects of the gas. I know of no hard and fast rule as to when the ether should be turned on. I have seen the two combined from practically the start, and I have seen the ether commenced just towards the end of the nitrous oxide narcosis. In the latter case, the ether must be "pushed," otherwise the patient may start coming round from the gas before he can get any advantage from the ether.

I know of only one objection to the combination, and that is the liability of the ether to cause vomiting, which sadly interferes with the work of the dental surgeon.

[Written for the MEDICAL BRIEF.]

The Provincial Hospitals of England.

BY DAVID GORDON, M. A., M. D.,
London, England.

The American physician who, periodically, either for health or recreation, pays a visit to Europe, is usually fairly familiar with the trend of medical thought in London, Paris, Berlin, Vienna and other continental towns, but rarely thinks it worth while to make himself practically acquainted with the progress in the art and science of medicine and surgery which is slowly but steadily taking place in Manchester, Liverpool, Birmingham, Leeds and other provincial cities of England. And yet many of these are well worth visiting and have hospitals and in-

firmaries which compare favorably with similar institutions in London. Many of the buildings are old, but others are modern erections, constructed with a lavish expenditure, rarely met with in metropolitan cities. The explanation is simple, the successful merchant who has amassed a fortune wishes his name to be perpetuated in the town in which he was born, and this is easy of accomplishment in the provinces, whilst in London, where there is less scope for individualism, the feeling exists in a much less pronounced form and is developed to a smaller extent. Again, the overcrowded condition of our cities, the difficulty of acquiring a large site and the enormous ground rents are a bar to enlargement on anything like a big scale. Vested interests have to be considered, municipal authorities have to be conciliated and a comprehensive scheme of hospital reform meets with much opposition, its accomplishment involving years of heart-breaking delay. In the provinces there is greater rivalry between town and town and no opportunity is lost of promptly advancing local interests. Take Birmingham, for example, an industrial city of some half a million inhabitants. There, under the ægis of the university of which Sir Oliver J. Lodge is principal, is the General Hospital, which, originally established in 1766, was rebuilt in 1897 on the most modern principles. It affords relief annually to over five thousand in-patients and some sixty-four thousand out-patients. The senior physician is Dr. Saundby, a prominent official of the British Medical Association, and a well-known writer on diabetes and other kindred subjects. He gives a course of lectures on "Ethics" to medical students and practitioners during the summer session. He is ably supported in his work by a number of junior men, both physicians and surgeons, on whom much of the actual clinical teaching naturally devolves. Prominent amongst the younger men may be mentioned Dr. Russell and Dr. S. H. Perry.

The General Hospital, although the chief, is by no means the only hospital in Birmingham, and there are more than a dozen public institutions devoted to diseases of children, skin, the ear, the eye, the throat and other specialties. The difficulty with the provincial towns is that there is not enough actual consulting work to enable the members of the staff to abjure what is called general practice, and although a man may be surgeon to a hospital it will usually be found that he is not adverse to visiting wealthy patients as their ordinary medical attendant. His time is often so fully occupied with private work that unless he is a person of exceptional energy he has little time to record his experience or publish papers, much less to compile works on special subjects. To this, however, there are many notable exceptions, and there are provincial surgeons who have a reputation which extends far beyond their own district.

Amongst the most progressive of the provincial medical cities may be mentioned Leeds, in Yorkshire, closely associated with the admirable surgical work of Mayo Robson and Moynihan. Mr. Mayo Robson, it is true, has recently migrated to London, but the influence of his teaching remains.

Within half an hour's run of Leeds is Harrogate, famous for its baths, and the fashionable resort during the summer months of patients suffering from gout, rheumatism and allied conditions.

Another large medical center in the north of England is the University of Durham College of Medicine, at Newcastle-on-Tyne. A new college building has recently been erected at a cost of thirty thousand pounds and is well-provided with laboratories of all kinds. On the staff of the Royal Infirmary are Sir George Hare Philipson, Dr. Drummond and Dr. Oliver. On the surgical side is Mr. Morison, whose name is familiar in connection with the Drummond-Morison operation for cirrhosis of the liver. The degrees of the university are open to men and women, and there is a special degree in hygiene, known as Doctor in Hygiene (D. Hy.). Another feature of the university is a degree of Doctor in Medicine for medical practitioners of over fifteen years' standing, which is conferred without residence. The candidate must be over forty years of age and the examination is by no means easy, extending, as it does, over many days and embracing a wide range of subjects.

Returning to the Midland counties, Manchester and Liverpool claim our attention. These towns display much intellectual activity and the Victoria University, of Manchester, has a well-deserved reputation. The professor of *materia medica* for many years was Dr. Daniel Leach, a prolific writer on therapeutics, who at his death was succeeded by Dr. R. B. Wilde. Physiology is in the hands of Prof. W. Stirling, who is the dean of the medical faculty and whose works on physiology are recognized textbooks. On the staff of the Royal Infirmary are many well-known men, amongst whom may be mentioned Mr. William Thorburn, the author of many books and papers on the spinal cord and on spinal injuries. In naming names it is often difficult to make a selection and the natural tendency is to refer to those who either from one's personal knowledge or from acquaintance with their published works seems especially to claim attention.

Liverpool, like Manchester, has its own university, which is empowered to grant degrees in medicine, surgery and kindred subjects. Only a few years ago practically all students of medicine in England found their way to London, but many of them now find all they require nearer home. The cost of living in a provincial town is considerably less than in London, the young man is kept more closely under supervision and is not subject to the temptations of a big city. On the other hand, it must be confessed that he has not the same opportunities of acquiring a knowledge of the world and of certain refinements which, in the long run, may prove of quite as much value to him as his purely professional attainments. A considerable number of Americans pass through Liverpool in the course of the year and those who are students of medicine can not fail to find much to interest them at the Liverpool Royal Infirmary, which contains some three hundred beds. Dr. James Barr, the senior physician, and the president of the Liverpool Medical Institution, is a clever and concise clinical teacher. The emeritus professor of physiology in the university and consulting physician to the Royal Infirmary is Dr. Richard Caton, who last year delivered the Harveian Oration before the Royal College of Physicians, of London, taking as his subject, "I-Em-Hotep and Ancient Egyptian Medicine."

No one should fail to visit Oxford and Cambridge. Although certain schools existed in Oxford before the time of King John, it was not until the latter half of the twelfth century that a system of academical degrees was founded. The idea of a university with the nomenclature of the chief academical officers, was adopted from abroad, and originated in the schools of Bologna and Paris. The earliest reference to the practice of surgery in Oxford is contained in a statute dated November 7, 1462, wherein mention is made of one Petrus de Alcomlowe, who, after examination, was admitted and licensed to practice the art of surgery in the city. Although a school or hall for teaching medicine had existed, and professors of medicine appointed in the university, there was no endowment for this purpose until 1524, when Thomas Linacre left certain lands in fee in the County of Kent for the maintenance of two physic lectures in Oxford. Linacre was born in the year 1460, and was educated at Canterbury. At the age of twenty he went to Oxford, and in the year 1484 was made a Fellow of All Souls. Among the famous medical men who graduated at Oxford, mention must be made of Thomas Sydenham, who was born at Wynford Eagle, in Dorsetshire, in 1624, and entered at Magdalen Hall, Oxford, as a fellow-commoner, in 1642. He had not been long at the university when the civil war broke out, and he joined the Parliamentary forces and remained in military service until 1646, when he returned to Oxford and took up the study of medicine. Another worker in Oxford in the seventeenth century was William Harvey, who studied anatomy and practiced dissecting in the University City. He went to Oxford with King Charles, and was there incorporated M. D. in 1642. Three years later he was made a Warden of Merton by royal mandate, and remained in the city until after its surrender, in 1646, when he returned to London.

Oxford and Cambridge are old-world university towns, more intimately connected with the teaching of classics and mathematics than medicine; in fact, it is

only during the last decade that they have attained any distinction in modern medical schools. Even now the majority of men who take their preliminary subjects at one or other of these universities, go to London for hospital practice. It is inevitable, for though both Oxford and Cambridge boast of well-appointed hospitals, the surrounding districts are essentially rural, and there are no large manufacturing towns from which to draw a sufficiency of patients. Even the best physician and surgeon can do little without adequate material. University life is placid and anything that disturbs its habitual equanimity is regarded with but little favor. The recently-appointed Regius Professor of Medicine at Oxford is William Osler, of Baltimore. The official duties of the post from the teaching point of view are few, but it is not unlikely that the new incumbent may initiate a new departure and give systematic courses of instruction in medicine. It is to be sincerely hoped that he wil do so, for his reputation as a teacher would attract students. Dr. Gotch is the Waynflete professor of physiology, and Dr. Ritchie is the lecturer on pathology. At the Radcliffe Infirmary Mr. Horatio P. Symonds is favorably known as an operating surgeon. In the University of Cambridge Mr. Howard Marsh has been appointed lecturer on surgery, but apparently still practices in London. The Linacre lecturer on medicine is Dr. Donald MacAlister, who has had a distinguished university career.

The Cambridge Hospital is Addenbrooke's and was founded in 1740. It contains only one hundred and seventy-four beds. Oxford and Cambridge are visited annually by enormous numbers of Americans, but probably more for the halls and colleges than for the laboratories or hospitals.

It is by no means a far cry from any of the Midland towns to Wales, and Cardiff is well worth a visit. The Welsh surgeons have the reputation of being good operators, and as many of them practice in coal-mining districts, where accidents are of almost daily occurrence, their opportunities of obtaining practical experience are great. The air is pure, the constitution of the inhabitants is robust, and the results are remarkably good. Mr. John Tatham Thompson, of Cardiff, has devoted his life to ophthalmology and has probably one of the largest practices in the United Kingdom. In the domain of general surgery Mr. John Lynn Thomas, also of Cardiff, is equally successful.

There would be no advantage in attempting to map out an itinerary for American visitors, for England is a comparatively small country, the railway accommodation on the main lines of travel is excellent, and every place here mentioned can be visited with but little expenditure of time or trouble.

In most provincial towns there are medical societies which meet once a month or oftener for the discussion of papers and the demonstration of rare and interesting cases. As a type of these societies may be mentioned the Liverpool Medical Institution and the Bristol Medico-Chirurgical Society. Their functions, as a rule, are scientific, rather than ethical. In addition, scattered throughout the country are branches of the British Medical Association. The British Medical Association was founded at Worcester on July 19, 1832, being originally designated the "Provincial Medical and Surgical Assocation." On that day fifty medical men attended a meeting at the Worcester Infirmary, convened by Dr. (afterwards Sir) Charles Hastings, to consider the formation of the proposed association. Dr. Edward Johnstone, of Birmingham, presided, and after an address by Dr. Hastings on the objects contemplated, it was unanimously resolved that an association should be formed. A code of laws was adopted, and officers were elected. Dr. Johnstone was elected president for the years 1832-3, and Dr. Hastings and Mr. J. P. Sheppard, joint secretaries and editors of the *Transactions*. The association began with a membership of one hundred and forty.

In spite of many reverses of fortune and many ups and downs it now includes some twenty thousand duly-qualified medical men and has a balance of income over expenditure of about five thousand pounds a year. Its official organ is the *British Medical Journal*. There is an annual general meeting, the next, the seventy-third, being appointed to be held at Leicester, from July 24 to July 28, under

the presidency of Mr. George Cooper Franklin, F. R. C. S., surgeon to the Leicester Infirmary. These annual meetings are visited by a number of American physicians, who always receive a most hearty welcome. A few of them are members of the association. Many provincial towns publish their own medical journals and amongst them may be mentioned the *Manchester Chronicle* and the *Birmingham Medical Review*, both of them of high repute and ably conducted.

In conclusion, there is a point on which I should like to say one word. The term, "Professor," is far less commonly used in England than in America. The lecturer on medicine at Guy's Hospital, London, or the lecturer on surgery at St. Bartholomew's, would not dream of calling himself professor, although both schools, like all medical schools in the metropolis, are affiliated to the University of London. In connection with purely university functions the term professor is rightly and properly used, but is not employed in private life, or in the relationship which exists between a doctor and his patient. For a man, however eminent, to habitually call himself, or allow himself to be addressed as professor, would be to stamp him as a person destitute of the conventionalities of modern life. The custom in England is to call a physician "Dr." and a surgeon "Mr." The general practitioner, without a university degree, compromises matters by calling himself "Mr." and allowing other people to address him as "Dr.," but by courtesy every medical man is a "doctor."

[Written for the MEDICAL BRIEF.]

Removal of Plaster of Paris Dressings.

BY WM. C. TODD, M. D.,

Philadelphia, Pa.

I noticed in a recent issue of the BRIEF a way to remove plaster of paris dressings. With no desire to criticize other plans, it occurred to me that it might be of interest to the readers of the BRIEF to know a simpler, easier and better way. My plan is to simply immerse the part in a warm bath for twenty or thirty minutes, when the plaster becomes so disintegrated that the bandages can be cut with ordinary scissors.

[Written for the MEDICAL BRIEF.]

The Treatment of Pathological Conditions of the Urethra by Means of the Modern Electro-Urethroscope.

BY W. K. OTIS, M. D.,

Professor Genito-Urinary Diseases, New York School of Clinical Medicine; Consulting Surgeon to the City Hospital; Attending Surgeon St. Mark's Hosptial; Attending Surgeon West Side German Dispensary; Fellow of the New York Academy of Medicine, etc., New York City.

The very important advances made during the past few years in the treatment of urethral lesions by means of the electro-urethroscope, has given this instrument a wide popularity even among those who do not make a specialty of genito-urinary diseases. As is the case with instruments of a similar character, the laryngososcope, otoscope, etc., it is also an instrument the practical working of which, to the best advantage, requires a considerable amount of technical knowledge and skill, and a proficiency in its use can only be obtained by the expenditure of much time, much labor and much patience in its actual application on the living subject.

Both theory and practical experience have demonstrated the futility of using the urethroscope in the acutely-inflamed urethra, for not only does the examination cause an extreme degree of pain to the patient, but the introduction of the tube tends to aggravate the inflammatory condition to a far greater extent than any local applications can benefit or soothe it.

When, for any reason, such an examination is made, the swollen mucous membrane is seen of a bright, angry red, and the purulent discharge oozes into the field and fills the central orifice, so that constant swabbing is necessary to obtain a satisfactory view. Owing to the swelling of the mucous membrane the openings of the urethral glands are not prominent, as they become later on.

During the course of an ordinary acute gonorrhea, when the inflammation has reached the active stage, the entire urethra becomes infiltrated and stiffened, so that it may be plainly felt along its course by a finger from the outside. Ow-

ing to this cell infiltration the urethra loses its elasticity and when erections take place fails to stretch, as when in a normal condition, bending the penis into an arc and causing the extremely annoying and painful condition known as chordee. This continues until, say, the end of the third week, when an improvement begins to take place, the cellular infiltration is entirely absorbed, the urethral mucous membrane gradually returns to its normal condition and the patient is well.

A very large number of cases, however, do not result so favorably, the resorption of the cell infiltration in various parts of the urethra fails to take place, so that areas of hardening of greater or less extent are left, over which the epithelium does not form, leaving a granular condition, which is easily observed through the urethroscope, and which results in a continuance of the discharge.

It is evident that this infiltration plays a very important part in the pathology of chronic urethritis. It may be entirely confined to the superficial mucous layer, in which case entire resolution usually takes place, or, owing to the penetrating power of the gonococci, the entire thickness of the urethra may be involved, or even the erectile tissue of the spongy portion; in which case there is a marked tendency toward the formation of organized fibrous tissue.

Whenever the infiltration involves the entire circumference of the urethra, and only when this is the case, does its transformation into cicatricial tissue produce the condition known as urethral stricture.

Then the entire canal is surrounded as by an elastic band, and, owing to the contraction which inevitably occurs in scars, no matter where situated, the urethral lumen is narrowed more and more, or as we say, the stricture becomes tighter, until it may become impassible to the smallest instruments.

Dilatation, either by the passage of solid sounds or by means of any of the mechanical dilators now in use, temporarily stretches the band of connective tissue, but if it has become organized does not obliterate it and, sooner or later, it will return, unless the dilating process is continued.

If, on the other hand, we cut entirely through the band at any one point, no matter how tight the stricture may be, it instantly disappears, so that it becomes impossible for the most proficient and dextrous hand to locate its former site by means of the bulbous bougie.

The point to be selected is on the superior surface of the urethra, in the exact median line, cutting into the space which exists between the two corpora cavernosa, thus avoiding to a great extent any danger from hemorrhage.

The fibrous tissue still remains in the urethral wall, but its contraction no longer diminishes the lumen of the canal. As when a rubber band tightly compressing a soft, pliable tube, is divided entirely through at any one point the compression is instantly released. So, also, with isolated plaques of indurated tissue in the urethral wall, which do not entirely surround it, while their presence may exert a direct influence upon the surface of the mucous membrane overlying them, they do not diminish the caliber of the urethra, and by contraction they tend to become smaller and, after a long time, finally disappear.

The pathological changes produced by chronic urethritis observed by the urethroscope, differ not only in different urethræ, but also in the same urethra at the same time. They depend upon the underlying infiltration, the length of time the inflammatory process has existed, to the severity of the acute stage, and the involvement of the minute glands of the urethra.

When the infiltrations are of what Oberlaender calls the "soft" variety, *i. e.*, consist of simple embryonic cells which have not undergone a transformation into fibrous tissue, the mucous membrane will present a color of a more or less deeper red than the healthy mucous membrane. The underlying infiltration interferes by contraction with the nutrition of the epithelium, causing it to look dull and to desquamate, leaving areas of fine granulation. When the infiltration has become organized, on the other hand, the mucous membrane is paler in color than normal, due to impeded circulation, being of a slaty-red or of a reddish gray.

The mouths of the ducts may be seen surrounded by little red circles, which remain after the surrounding tissue has become pale, the openings of these ducts are often enlarged and gape open. Occasionally the mouths of the ducts become plugged and form a variety of peri-urethral abscess.

The central aperture also differs from that seen in the healthy urethra; the inflammatory condition stiffening the urethral wall causes it to close less readily over the end of the tube, forming an irregular funnel-shaped opening.

To Oberlaender belongs the greatest credit for the discovery, by means of the urethroscope of the pathological conditions underlying chronic gonorrhea, and his minute and lucid description of the lesions encountered, observations which have been corroborated by Neelson in his *post-mortem* investigations regarding the pathology of urethral stricture.

In the treatment of chronic urethritis by means of the urethroscope, we have the very great advantage of being able to direct energetic measures to a localized lesion, without interfering with the healthy surrounding tissues. As Janet has very happily expressed it:

"Let us suppose the case of an ulceration of the neck of the uterus in a woman. It is evident that we would not dare practice vaginal injections of pure tincture of iodine,or one-fourth nitrate of silver to reach this ulceration. If we did not possess the speculum, we should be forced to content ourselves with very feeble vaginal injections; but what a long time it would take to effect the desired cure. On the other hand, by means of the speculum we are enabled to touch the ulcer directly with tincture of iodine, chromic acid, pure nitrate of silver, or even the galvano-cautery, and thus rapidly arrive at a favorable termination."

This, indeed, is the great advantage the urethroscope offers in the treatment of chronic gonorrhea. When the discharge persists in spite of various methods of local treatment, we can definitely locate the source of suppuration and make use of direct applications to a limited area of a strength it would be impossible to use in any other way.

The patches of granulation may be thoroughly swabbed with silver nitrate, sixty grains to the ounce, or with cupric sulphate, or even when the areas are small, with pure lunar caustic. The surgeon may please himself in the rational application of any of the many substances used for a similar purpose in the treatment of analogous lesions in more accessible mucous membranes.

In the diagnosis and treatment of urethral stricture the urethroscope is without practical value, with the possible exception of certain cases in which it is difficult to pass an instrument owing to the eccentric location of the urethra through the strictured portion. In these cases the urethroscopic tube can frequently be passed down to the anterior face of the stricture, the urethral opening seen and an instrument introduced under the direction of the eye.

Attempts have been made to perform internal urethrotomy by means of small knives on handles, passed down the urethroscopic tube, but this operation is accomplished with so much greater facility and success by other methods, that it is only mentioned to condemn.

Although the urethroscope has always been recognized as a valuable means of removing foreign bodies from the urethra, and while I have no doubt that on certain occasions it may serve a useful purpose in this connection, at the same time I must confess that I have experienced far greater success, particularly in extracting urethral calculi, by the use of the forceps in the urethra, without any tube.

In the diagnosis and treatment of urethral polypi, the urethroscope reigns supreme, for by no other means can we discover their existence or remove them after they are found. They may occur in any part of the urethra and, according to Oberlaender, in an article on "Urethritis Papillomatosa,"* with much greater frequency than is usually supposed. From my own experience, derived from the examination of a very large number of ure-

* Monatsheft fur prakt. Dermatologie 1889, Band X.

thræ, I am unable to agree with him in this respect, and consider that, in this country at least, they are comparatively rare. When polypi do occur they are usually papillomata.

The symptoms which they produce depend largely upon their location. When in the deep urethra they may produce frequent and painful urination and nocturnal emissions; when in the anterior urethra diminished stream and the production or continuance of a discharge, or they may cause very annoying itching, or give rise to hemorrhage, or they may give no evidence of their existence whatsoever.

The removal of polypi is not always so very easy, though there are several methods which have been suggested for its accomplishment. Among the best of these is the alligator forceps of Kollmann, with cutting edges, or the concentric tubes of Klotz, by means of a fine wire snare, a sharp curette, the galvanocautery, or by what Oberlaender terms "tampon ecrasment." The penis is stretched tightly over the end of the tube and the growth rubbed off by means of two firmly-wound swabs of cotton on applicators. The base of the tumor, no matter how removed, should be thoroughly cauterized with pure nitrate of silver or the actual cautery. It should be borne in mind that the caput galinagini is not a polyp, and that its removal should not be attempted by any of these methods, which have proved so serviceable in the past; but should be considered as an adjuvant to them, an additional means of alleviating and healing pathological conditions, which have proved so refractory as to have formerly been placed in the category of diseases incurable.

5 West Fiftieth Street.

Enclosed find one dollar and fifty cents for the MEDICAL BRIEF for 1905 and *Funny Bone*. I do not want to be without the BRIEF. It is not like some journals, discarding everything, no matter how good, unless stuffed with society and ultra education gossip. The BRIEF is plain, and stands open to and for the good of all its patrons and suffering humanity.—B. H. ADKISSON, M. D., Corley, W. Va.

[Written for the MEDICAL BRIEF.]

Tonsillotomy.

BY ROBERT C. MYLES, M. D.,

Professor of Larynology and Rhinology in New York Polyclinic Medical School and Hospital; Surgeon Polyclinic Hospital (Nose and Throat Department); Fellow of the Academy of Medicine; Member of the State Medical Association; Member of the American Medical Association; Member of the American Laryngological Association; Member of the American Otological Society; Member of the American, Laryngological, Rhinological and Otological Society; Member of the County Medical Society, Pathological Society, Etc. New York City.

In regard to tonsillotomy the problem that we are trying to solve is, by what procedure can we remove the tonsils so that they will not, in the language of the old practitioner, "grow again," or return. The story of their recurrence is one to which we have to listen too frequently. I do not believe that the tonsils often really recur, but simply continue to grow in their basic parts, where the superficial parts only have been removed.

In examining the patient, when we depress the tongue two large rounded masses appear on either side, posterior to the molar teeth, and the masses are more manifest when the tongue is depressed during the act of gagging. The constrictor muscles combine to push the masses outward, and you can readily determine their dimensions.

Non-pedunculated tonsils, to be properly eradicated after the ordinary tonsillotomy, should have their basic parts removed with the punch forceps, scissors, or the wire snare, or they may be dissected out with retention forceps and bistoury. This latter procedure is more dangerous than the punch forceps method on account of the uncertain control of the position of the patient.

The hemorrhagic factor has long stood in the way of removing the tonsils, and is usually proportionate to the amount of the capsular tissue severed. The hemorrhage is usually in the circumference of the cut, it is generally in the lower third and is less likely to follow the use of the wire snare than cutting. But since we understand how to compress these arteries and have improved compressors, chiefly in the form of specially-con-

structed forceps, we do not fear bleeding, as formerly. We dread more the secondary hemorrhage which occurs when the patient is out of reach.

In cases where the operation is performed without general anesthesia, I use one hundred per cent solution of cocaine upon the tonsils, carefully placing it deeply into the crypts and over the field of operation, and allowing at least twenty or thirty minutes for the cocaine to act, repeating the application two or three times during that time. In addition, I frequently use a solution of cocaine, one-eighth to four per cent, hypodermically and, in a great measure, it relieves the suffering caused by the partial extirpation of the gland. If the condition of the cervical glands is noted they will usually be found to be swollen and enlarged in proportion to the quantity and virulence of the retained debris and infective products. The spaces between the margins of the capsular sheaths are very small, and the bases of the tonsils are two and one-half times larger.

This operation may be performed with or without a general anesthetic. With the general anesthetic it can be performed somewhat more satisfactorily to the physician, but frequently on account of the expense, prejudices, conveniences, etc., we have to operate under cocaine.

The child is placed on her side during general anesthetization, the tongue is depressed, and the upper tonsil is dissected out and the blood flows down and out of the mouth upon the other side. The table should be high, so that the operator can work from a lower plane than that of the patient. An expert anesthetist should aid the surgeon by getting rid of the blood with swabs, and can inform him whether the blood is interfering with the respiration. The blood sometimes flows rather freely and makes the operation longer than it would be otherwise, but that will occur in either case. After a thorough cocainization, both locally and hypodermically, the average patient does not seem to mind the operation very much, so far as the pain is concerned. The child fights the application of the cocaine and the depression of the tongue as much or more than the operative procedures. It is essentially a rather long process on account of the difficulties encountered in cutting away the deeper parts and the care to be employed in order that the neighboring tissues may escape injury. The tonsillotome was not made for removing the deeper basic parts. The best instrument to aid one in this procedure is the punch forceps.

Although they may be well removed with a tonsillotome the patient may present herself within a year for treatment and another operation. It is not infrequent to find in these cases large, submerged tonsils, with hidden, cheesy deposits in the deeper parts of the crypts, sometimes one-half to three-quarters of an inch below the surface and of the most septic character.

Such an amount of diseased tissue requires extensive dissection. If one does not wound the neighboring mucous membrane there is very little pain afterward.

46 West Thirty-Eighth Street.

[Written for the MEDICAL BRIEF.]

Tuberculosis—A Preventable and Limitable Disease.

BY WILLIAM PORTER, M. D.,

St. Louis, Mo.

It may be well to define two terms which are frequently used as seeming synonyms. Tuberculosis has been used as a scientific term, consumption as a conventional one. But in later days the two terms are not entirely interchangeable. Tuberculosis is a specific disease which may remain a long time latent, and is characterized by the presence in the affected organ or tissue of the bacillus tuberculosis. Further along, when the local conditions become active from processes now partly understood, other microorganisms appear, the pus-producing and the fever-producing germs, accompanied by general symptoms, such as fever, loss of appetite, rapid disintegration of tissue and general emaciation; we call this condition consumption. It is an outgrowth of the tubercular condition, or, in other words, it is tuberculosis plus.

It is generally conceded that one-seventh of all those living in cities and towns, and one-tenth of all others, are, according to present rates, doomed to die

from consumption. This means that seven millions of those now living in the United States will die of this dread disease; it means that one hundred thousand now living in St. Louis will be its victims. Our country will contribute in one year a number equaling the total loss of life in the great eastern war to date (March 13th). In Germany, between the ages of ten and twenty-five, almost one-half of the deaths are due to consumption. In St. Louis it is fair to estimate that there are between four and five thousand cases of this disease. The New York Board of Health estimates two hundred thousand cases in that city, and like authority places the number in Boston at five thousand.

When we remember that each case means, on an average of two years of suffering, a gradual decline and emaciation, also the danger to those in attendance, the picture grows more vivid.

Without appealing to sentiment, or offering generalities, I want to present a few facts in support of organized effort, soon, I hope, to be made, to limit and ultimately overthrow this greatest of all destroyers.

For nearly twenty-five hundred years the dictum of Hippocrates, that all consumptives die, has been supposed a verity. But to-day the leaders who are active in this department believe that tuberculosis is one of the most curable of all diseases.

Only recently Bouchard concluded his lectures by saying, "This disease, which has such a strong hold on humanity, is curable in the larger number of cases." But my object here is not treatment of the disease and its cure in the individual, it is rather the question of limitation of consumption, and the very important role which citizens have in its accomplishment.

Limitation of tuberculosis is not a Utopian hypothesis. Pasteur has said it is in the power of man to cause all parasitic diseases to disappear from the world. Other parasitic and infectious diseases are controlled—cholera, the bubonic plague, diphtheria, yellow fever, and small-pox. Yet this disease which more largely perhaps than any other is dependent upon ignorance and carelessness can be largely controlled, and is curable, and yet we permit it to hold unchallenged sway.

Figures are of more value than mere statements. In New York the death-rate has fallen 4.2 per cent per thousand to 2.29 per thousand, a reduction of over forty per cent. In Philadelphia the reduction in ten years has been nearly forty-five per cent. Upon the basis of the New York and Philadelphia results, if the disease were as thoroughly controlled elsewhere throughout our country there would be a saving of forty per cent, or 2,800,000 of those now living in the United States. Is this worth while? If the lives of its citizens are a country's most precious possession, surely here is something worthy of the best and most careful legislation.

Spitting, except in proper receptacles, should be made a misdemeanor, just as any other violation of offensive acts is a misdemeanor. With this addition that the consumptive who expectorates on the street, on the floor, in the public hall, in the street car, is not only committing a nuisance, but he is, through ignorance or carelessness, making a direct assault upon human life. There is nothing more horrible than to ride in one of our overcrowded street cars, every window closed, filled with over-vitiated air, with the consciousness that you are grinding under your feet the dried sputum of some previous passenger, certain that you are inhaling air that some tuberculous patient has just exhaled. The nausea is bad enough without the danger.

The opportunities for inhalation of bacilli are everywhere. While I would deprecate what Dr. Knopf terms "phthisiamania," it must be admitted that wherever a consumptive has been careless in his actions, there is danger. If the portieres in the sleeping cars and the heavy unwashed colored blankets in the berth could tell us how many consumptives have been using them before our occupancy, if our room at the conventional health resort could reveal all that had therein transpired of sickness and death, if it did not make us miserable it would make us insist upon greater care. Infection may also take place through food and by inoculation, but these are not the great dangers.

The first great work in the prevention of tuberculosis is the insistence by the press, by city, county and State boards, and by the physicians that the sputum should be cared for, and this can easily be done if the patient will use a covered cup containing a weak solution of common concentrated lye, and will expectorate nowhere else in the house, the sputum will be rendered harmless. For the street special receptacles can be easily carried in the pocket, which may combine cleanliness and safety without undue exposure. If nothing else, a small wide-mouth bottle, concealed in the pocket handkerchief, and fitted with a broad-topped stopper, will answer the purpose. There are many text-books which make special mention of the care of the sputum. What I specially wish to do here, is to insist that it should be cared for.

Fresh air is a necessity. Physicians in the van of the crusade say that a special climate is not necessary in consumption, it is outside air which counts, air which has not been breathed before, and it matters not whether it is air in New York, Mexico, or St. Louis. Our modern houses are too often hot-houses for the propagation of consumption, and the factory and the workshop are in the same category. Pure air, or rather unused air, is God's remedy and preventative, and yet we persistently shut it out. I may be tempted to use a common drinking cup, I have taken a whiff from a dirty pipe passed to me by a dirtier old chief, but I will not, when I can help it, drink in the air which has passed through some one else, be his condition what it may.

I would not be understood as saying that one may pick up tuberculosis anywhere and everywhere, for, fortunately for us, the bacilli require certain conditions for living, but I do say that all that hinders the distribution of the bacilli limits tuberculosis to that extent. There is much more that might be said regarding the prevention of tuberculosis, but space fails.

Let me make a few deductions. Consumption is curable and limitable. Its limitation is largely a matter of education. The rich should be instructed, and the poor instructed and helped. It is a work well worth doing, and worth doing well. It is a work not only humanitarian, but it is an effort for the safety and preservation of ourselves and those dear to us.

What is being done to further this work? First of all, there has recently been founded an association for the further study and prevention of tuberculosis, comprising the leading workers in this department. In many cities provision is being made for the building of special sanatoria for consumptives. Private institutions are found in nearly every large city, and camps are everywhere being located from the Adirondacks to the Mexican border. The earnest worker after knowledge of this kind will find in current medical literature, in many of the popular magazines, in the papers written by many of the prominent physicians throughout the country special and detailed directions, not only for personal work, but for organized effort. I believe the time is at hand when every city and every county will have its organization for the prevention and limitation of tuberculosis as thorpughly equipped and as actively engaged as would be the case were the city or country threatened with an epidemic of small-pox or yellow fever.

If Pasteur was correct in saying that it was in our power to eradicate all parasitic diseases, it is time the average American citizen should exert some of that power. The physicians' responsibility in this direction is greater than that of the average American citizen. The doctor must be what his title indicates, he must be a teacher, and the responsibility is largely at his door.

3886 Washington Avenue.

[Written for the MEDICAL BRIEF.]

A Plan to Regulate Prostitution.

BY ALFRED W. HERZOG, PH. B., A. M., M. D.,

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Prostitution exists and must be reckoned with. Yet, although the question presents various aspects, I at the present time do not wish to view it from the standpoint of morality or religion, but only from that of medicine and hygiene.

We must admit that the human race would be vastly better off if such a thing as prostitution did not exist, yet it does exist and we must consider what may be the best means to deal with this evil.

Under the present systems of marriage and social economics there can be no question that it is impossible to suppress prostitution entirely.

In fact, it has been proven that wherever this has been tried prostitution has spread more than before.

That prostitution, which by reason of its illegality has become clandestine, is the means of bringing the evil into tenement and boarding-houses.

The prostitute who knows that she is practicing prostitution against the laws of the place wherein she lives, pays the police for protection and the effect is that in this way the evil, instead of being controlled, not only flaunts itself worse before the eyes of the public than if prostitution were licensed, but medical examinations are a rarity.

I think that every thinking mind will agree with me, that suppression of prostitution is impossible at present. The present systems have attempted to remedy the evil somewhat by licensing the prostitutes, segregating them to certain localities, and by forcing them to undergo a medical examination at certain intervals, so as to protect the public against the triad of diseases, namely, gonorrhea, chancroids and syphilis.

Yet the public in dealing with prostitution is suffering from false modesty to such an extent that it hardly dares touch at this subject for fear of soiling its fingers, and the consequence is that prostitution, instead of being handled with the mailed fist, is touched gingerly with rubber gloves.

Let us look at the subject fairly, squarely, and handle it without fear or favor.

We must bring it about that prostitutes are not only regularly licensed and controlled, but also that all the prostitutes are relegated to a certain district, where they can be regularly examined.

It also seems to me that it will not be enough to have certain houses in certain streets set apart for prostitutes and the purposes of prostitution, but eventually these streets will have to be closed to any female not a prostitute, and any man desiring to enter that part of the town will have to be examined by a medical inspector as to his freedom from either gonorrhea, chancroids or syphilis.

This, at first aspect, may seem an impossible measure, yet if we consider the question even for a few moments only, we will find that nothing is easier than the proposed plan.

The placing of all the prostitutes into certain districts has been tried with a certain amount of success, both in San Francisco and Los Angeles; therefore, this would not cause any difficulty in any other part of the country.

I also understand that in some cities of China the entrances to all the streets are provided with gates, so as to prevent the entrance or exit of any person without the knowledge of the police.

But we need not travel so far in our example. In certain parts of Europe there are cities which are even now surrounded with walls, and the entrance to which is only possible through portals. Any traveler who enters is examined for the purpose of finding out whether he carries any dutiable articles.

What is possible in one case, in order to obtain some revenue for the city, should be equally possible in another case to protect the health of the citizens.

Let me then outline my plan. Designate a certain part of each city as the one where prostitutes are to be permitted to ply their trade. Have this part of the city either surrounded by fences, or arranged in some way so that entrance thereto is possible only through certain few entrances. Have each one of the entrances provided with a pavilion, or room, wherein those entering may be examined.

Such examination would naturally be entirely different in case the person desiring to enter were a male, than a female. If the person seeking entrance were a female, it would have to be ascertained whether or not she be a licensed prostitute. No female, not a licensed prostitute, should be permitted to enter, unless said female be a new recruit, when she would have to undergo, not only a personal examination as to her freedom from sexual disease, but would also have to

have her picture taken and receive a passport, containing her photograph, description, measurements (according to Bertillon or other systems), and her license number.

If the person desiring to enter were a male, nothing but a physical examination as to the three diseases would be necessary each time. Identification or other formality could and should be dispensed with. No restrictions need be placed upon the exit of either males or females.

It is clear that under this system sexual disease, as propagated by prostitution, would be reduced to a minimum.

It would be advisable that a periodical examination of the prostitutes be made, even though it were unlikely that any infection had taken place.

The expense of this whole system could easily be defrayed by a taxation of the prostitutes for license fees, medical examinations and, possibly, a yearly tax. The men also could be taxed a small fee for each medical examination.

It will thus be seen that my plan would mainly consist in an examination of the males, before each fornication, thus preventing an infection of the prostitute.

585 Lexington Avenue.

[Written for the MEDICAL BRIEF.]

Measles.

BY JOHN H. M'COLLOM, M. D.,

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A very erroneous opinion prevails as to the severity of measles and degree of infectiousness of this disease. Not only is measles the most infectious of all diseases, but it is infectious from the beginning of the cough, and this stage may exist for a period of even ten days before the appearance of an eruption.

Early diagnosis can always be made by an examination of the mouth of the patient, for Koplik's sign is found in every case of measles, if the patient is carefully examined in the early stages of the disease. Of course, this sign must not be confused, as is sometimes the case, with an aphthous condition of the mouth. It usually makes its appearance in the mucous membrane of the mouth four or five days before there is any coryza or eruption.

Only by early recognition and prompt isolation can an epidemic of measles be prevented. In the majority of cases this can only be done properly in a hospital.

Of the severity of the disease, it is sufficient to say that in many cities the records show the death rate from measles to exceed that of scarlet fever. It attacks adults much more frequently than the latter disease, and these patients require the best hospital treatment that can be provided for them.

Treatment.—Treatment of measles is largely symptomatic. If there is a high temperature, tepid bathing gives great relief to the patient and frequently lessens the delirium.

The ears in measles require constant attention, for in the treatment of a large number of cases it has been demonstrated that middle ear disease is more common than in scarlet fever.

The liability of a patient ill with measles to contract diphtheria is very great, therefore in hospitals it is advisable to secure the greatest possible isolation from other infectious diseases. Laryngeal diphtheria is one of the most serious complications that can occur in measles. Aphonia, occurring during an attack of measles, should cause the physician great anxiety because it is impossible to state definitely and absolutely whether the aphonia is due to a simple laryngitis or to diphtheria. Cases occur very frequently where there are marked laryngeal symptoms with no definite membrane visible, and yet the patient dies from diphtheria, as autopsies have proved.

Cultures from these cases do not give any assistance, because the membrane is situated so far down that it is impossible to reach it with a culture wire.

The eyes should receive attention, but it is not necessary to exclude the light to any great extent. Cold drinks should be given in sufficient quantity to relieve the thirst of the patient. The bed clothing should be light.

Frequently there is a severe attack of diarrhea, which should not be treated by

drugs, because this condition is due to the eruption of the mucous membrane of the intestines, and as soon as the eruption fades the diarrhea will stop.

In short, in the treatment of measles, make your patient as comfortable as you can. *Do not* put him in a dark room and cover him up with blankets and compel him to drink saffron tea or any other hot nauseous mixture. I have repeatedly seen patients ill with measles, with a temperature of 104° F., wildly delirious, in a dark room, covered with blankets, in about as uncomfortable a condition as possible. I have seen these delirious patients entirely relieved by tepid sponging, and a little fresh air and sunlight.

In conclusion, I desire to state that measles is not necessarily a mild disease; that these patients should be given abundant air space (at least 2,000 cubic feet) and should be treated in a hospital carefully isolated from other infectious diseases.

745 Massachusetts Avenue.

[Written for the MEDICAL BRIEF.]

Pelvic Pains.

BY DAVIS FORSTER, M. D.,
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Pain, the most dreaded of pelvic symptoms, has a distinct function to perform, as an indicator of lesions, and is worthy of our careful attention.

Of gynecological pains, probably the first to attract the attention of the practitioner is the pain in the small of the back of women in labor, indicating the divulsion of the cervix by the presenting head. Before her confinement this same pain in the back has been the parturient woman's first warning of threatened premature labor, and has been the signal for her to retire to a recumbent position.

Another common pain is the one situated at the top of the head, and is a reflex indicator of a uterine lesion.

Of the pains located in the pelvis one of the most common is probably the pain of the ovarian region. Of these pains three are located on the left side to one on the right side. The reason for this left-sided pain has puzzled gynecologists, and an anatomical explanation seems to be the most feasible. The right ovarian vein empties into the inferior vena cava at an acute angle. The left ovarian vein empties into the renal vein at a right angle. The acute angle manifestly presents an easier channel than the right angle for the flow to join the general blood current. The entrance of the right ovarian vein into the vena cava generally is situated about one-half to one inch lower than the entrance of the left ovarian vein into the renal vein, so that the mechanical problem of lifting the column of blood from one-half to one inch is presented to us. These anatomical conditions seem to be the most plausible theories for this ovarian pain, which is caused by the damming back of the blood upon the ovarian connective tissue and the engorgement of the same.

Of the menstrual pains we have practically three types, a knowledge of which is not to be overlooked. First, the pain of anteflexion, which starts as soon as the flow starts or within a half hour afterwards, increasing for twelve hours when the maximum is reached, and then decreases and is relieved by the end of twenty-four hours. This pain is due to the twist in the neck of the uterus and is relieved permanently only by thorough divulsion of the cervix or by wearing an ante-flexion stem pessary. The stem pessary is particularly to be advocated in cases of undeveloped infantile uteri, which are stimulated to muscular contraction by the presence of the pessary, and the uterus develops its muscular structure in the effort to expel the foreign body, *i. e.*, the pessary.

The second type of pain is caused by ovarian congestion; it is severe before menstruation, is relieved by the flow, to return after the flow ceases and congestion returns.

The third type is the pain of metritis or endo-metritis, which is constant during menstruation, least severe at its height, and is caused by uterine contractions of engorged tissue and inflamed musculature, and which can only be relieved by the relief of the underlying condition.

5249 Raymond Avenue.

itten for the MEDICAL BRIEF.]

Prevalence of Malaria.

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f Principles and Practice of Medicine
iseases of the Stomach in the Maryland
al College; Physician-in-Chief Frank-
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al Association; Ex-President of the
nore Medical and Surgical Association;
er of the Baltimore County Medical
y and Member of the Medical and
rgical Faculty of Maryland, etc., etc.,
Baltimore, Md.

nining the blood of patients as
outine examination, I was im-
y the large number that con-
e plasmodium of malaria, and
d to make a regular systematic
These examinations extended
riod of two years, and the cases
en haphazard from the regular
fice patients. The examination
od of these patients was taken
onsideration for the symptoms
for which they presented them-
Both dry and fresh specimens
en, relying almost entirely for
ng of the plasmodium in the
ecimen, as my experience has
e that the dry specimen stained
nreliable in many instances.

clinical examination was made
cases as regarded temperature
ry. The temperature was found
y-two cases to range from 99 to
Those above 100° F. being acute
ases of intermittent fever and
flammatory conditions existed.
was in the larger number of
nd no temperature at all during
y-four hours, even though taken
ee hours. There may have been
ise of temperature in a number
cases due to the malarial plas-
at odd times, which I was unable
or get any history of from the
The examination of the stained
showed all the cases to be of
an variety, excepting twelve
and five astevo automnal. Only
n of these cases gave any his-
cute attacks of chills and fever,
of them dated back as far as
years.

interesting to note how widely
d these cases were geograph-
ically, showing that the disease existed in sections not supposed to be malarial. The following States furnished patients with well-marked blood symptoms: Maine, one; Ohio, three; Indiana, one; Illinois, two; Indian Territory, one; New York State, three; New York City, six; Brooklyn, two; New Jersey, seven; Virginia, eighteen; West Virginia, two; North Carolina, twenty-three; South Carolina, seven; Georgia, two; Florida, two; Alabama, one; Tennessee, two; Maryland, State, forty-one, and Baltimore makes up the balance—about three hundred and twenty.

These cases of malaria were found either primarily or as a complication with the following diseases: Acute malaria, thirty; chronic catarrhal dysentery, eighteen; amebic dyesentery, three. The following is a list of the various diseases in which malaria was found as a complication:

20	Cases Acute Malaria	20	Malaria.
15	Cases Chronic Dysentery	11	"
38	Neurasthenia	27	"
34	Atonic Gastritis (children)	23	"
3	Chronic Malaria Cachexia	3	"
29	Hyperchlorhydria	25	"
7	Tuberculosis	3	"
9	Enterolysis	7	"
6	Gall Stones	4	"
11	Asthma	9	"
5	Hay Fever	4	"
15	Typhoid	12	"
9	Uterine and Ovarian Congestion	6	"
3	Chlorosis	1	"
12	Chronic Catarrhal Gastritis	8	"
15	Rheumatism (subacute)	10	"
9	Gastric Ulcer	7	"
7	Gastric Carcinoma	2	"
11	Acute Lobar Pneumonia	6	"
6	Migraine and Neuralgia	4	"
14	Grippe	10	"
9	Nephritis, Chronic Interstitial	4	"
3	Nephritis, Chronic Parenchymatous	1	"
23	Catarrhal Conditions, Nose and Throat	15	"
1	Pseudo Angina Pectoris	1	"
3	Gastroptosis	1	"
11	Gastrictosis	6	"
15	Subacute Malaria	15	"

Treatment.—Medical treatment has been rather unsatisfactory in the majority of these cases. Whether it was due to the effect of the complication that may have existed with the malaria, or interfering with the treatment directed at the plasmodium of malaria, is a question. Practically all of these diseases or complications showed little or no improvement unless the malaria was treated at the same time. This was very difficult on account of the disastrous effect upon the stomach and the vasomotor system of quinine, preventing the giving of the same in su-

ficient dosage to destroy the plasmodium in the blood.

Quinine has been our sheet anchor in the treatment of malarial conditions and has been looked upon as one of the few specifics in medicine. There is no doubt that it is to-day the best remedy we have to destroy the parasite, but we are constantly handicapped by the individual organisms which have an idiosyncrasy to the drug and are unable to take it in large enough quantities to completely eradicate the plasmodium from the blood.

All cases improve under quinine, even when it is given in small doses continuously over a greater or lesser time, but experience as to complete disappearance of the plasmodium from the blood with quinine has been very disappointing, having had many of my patients on full doses to the point of cinchonism for a period of three to four months. The examination of the blood of these patients regularly, the presence of the plasmodium, even though they were decidedly better and were loath to continue the quinine. It is just such cases as these which go on from year to year, with the presence of malaria in the blood, and act as mediums of inoculation for individuals that are free of the disease. These are the patients that in the early summer, when the anophles mosquito makes his appearance and obtains from their anatomy a culture of blood and inoculates another individual with the same, keeping up a continuous chain of malaria from year to year.

The other medicinal agents used in these cases, in an effort to completely eradicate the disease, are arsenic, iron and methylene blue, with general tonic treatment. The arsenic was used to the point of saturation with Fowler's solution, keeping the patient for weeks under its influence. In cases of severe anemia, and where the complicating disease did not contraindicate the use of the arsenic, it seemed to do considerable good, many patients showing more improvement with the arsenic than with the quinine. Arsenic was also given to some of the severer cases where there was a large number of parasites in the blood, hypodermically. This was given in the form of sodium arsenite, starting with one one-hundred-and-fiftieth of a grain once a day and gradually increasing the dose until the patient showed distinct symptoms of arsenical poisoning. This treatment gave more decided results than arsenic by the mouth, but was extremely irritating to most of the patients and, even though using all aseptic precautions, abscesses would form.

The combination of arsenic, quinine and iron seemed to give the best results in long-standing cases in which there was not such a large number of germs in the blood. The iron was given in different forms.

Methylene blue, which was introduced by Ehrlich for the treatment of malaria, and of which so much was expected, has been entirely disappointing in my hands. This drug was given in fifteen grains daily, divided into doses of five grains, which was without any appreciable effect whatever upon the disappearance of the parasite.

Although finding it practically impossible, with the remedies spoken of, to destroy the malarial infection, it was most interesting and gratifying to note the improvement in many of the diseases. This was especially striking in the cases of nervous origin and in many of the chronic diseases.

A change of climate seemed of more benefit towards complete recovery or disappearance of the germ than any of the previous treatments. Seashore or mountain residence seemed equally desirable and effective.

To sum up: The influence of a regular, systematic examination of the blood in all patients, whether presenting malarial symptoms or not, is certainly imperative, when we consider the large percentage of cases found. The recognition is of great importance, whether it be a primary disease or a complication, from the standpoint of treatment.

The fresh specimen examination is undoubtedly the most reliable and can be made without very much trouble or inconvenience.

In the present state of our knowledge as to treatment, quinine is still the most dependable drug we have for this condition.

1928 Madison Avenue.

ritten for the MEDICAL BRIEF.]

Alcohol.

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ommittee of Revision United
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nvenience in study, the science
stry is divided into organic chem-
e chemistry of the carbon com-
nd inorganic chemistry. Organic
y deals with the compounds of
rigin, substances obtained from
odies. Organic bodies are such as
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organic bodies in point of in-
l importance, the alcohols occupy
ious place. Alcohol in chemistry
pound of hydroxyl and a hydro-
dical which acts as a base.

emist classifies alcohols as mona-
atomic, triatomic, etc. He fur-
ifies them as primary, secondary,
e more prominent, well-known
re ethyl alcohol, methyl alcohol,
alcohol.

alcohol is obtained in the de-
distillation of wood, and is
various names such as wood
wood spirit, wood naptha, etc.
portant uses in the arts, and is
lvent for substances used in the
on of varnishes, but it must be
mong the poisons and it is en-
it for use as a remedy, either in-
r externally.

lcohol is obtained by continuing
ation after ethyl alcohol ceases
ver. It is this which gives to
s characteristic odor and taste.
Familiar substances known as
y chemists, but not by the pub-
garded, are glycerin and car-
. In pharmacy, one substance
known as ethyl alcohol, is un-
when the term alcohol is used.
lcohols are mentioned, the name
dical is given, as amyl alcohol,
hol, etc.

Ethyl alcohol is obtained from any substance rich in starch or sugar, such as grain, potatoes, juices of fruits, and possibly from cellulose, by converting it into sugar.

The conditions essential to produce alcohol are a solution of sugar, air, moisture, warm temperature, and the presence of a ferment. The process is called fermentation. Alcohol is obtained from the mixture by distillation. The cereals, grain, wheat, rye, etc., furnish starch; by the action of the ferment this is converted into its soluble form, or dextrine; by further fermentation, and the absorption of water glucose is formed; this substance is next broken up into alcohol and carbon dioxide. Further oxydation of the alcohol produces aldehyde and finally acetic acid. This fermentation is called sometimes the vinous and sometimes the acetic. The first distillation of this fermented mixture (the first run of the still) is called low wine, and further rectification yields high wine.

The mixture of grains, water, malt and ferment used by distillers is called mash. If the ferment should be new, such as beer yeast, it is called sweet mash; if of a previous mash, which is sour in character, it is called sour mash.

We have seen that the fermentation which produces alcohol will generate acetic acid if it be allowed to continue. Arrested before it passes into acetic, the products formed are alcohol, carbon dioxide and amyl alcohol (fusel oil) glycerine, succinic acid and a variety of other substances. The equations of the chemists show only the principal reactions, but in the breaking up of an organic substance by fermentation a great variety of new compounds is formed. For the distillation of alcohol, whiskies are treated with charcoal and redistilled by the use of a series of condensers; distillation is in a sense fractional. Alcohol comparatively free from further products is eventually obtained.

The substance known as neutral sweet spirits is high wine filtered through charcoal, but not redistilled. It is colorless like alcohol, but with much of the odor of whisky. Whisky, brandy, rum, gin and arrack are all well-known intoxicating beverages and are made by fermenta-

tion and distillation. The alcohol in each is the variety known as ethyl alcohol. The difference in flavor is owing to the different essential oils which they contain.

Other alcoholic liquors which are not distilled are the various wines, such as port, sherry, claret, beer, etc. The fermented liquid from which whisky is distilled is known as beer; racked off and clarified, it is put on the market as the well-known beverage of that name.

An intoxicating drink which is not so familiar to the public generally, is that produced in Mexico, and is called pulque. It is produced by the fermentation of the juice of the maguey plant. Indulged in to excess, the effect is the same; it tangles the legs, flushes the face and puts queer fancies into the brain.

Both in pharmacy and in medicine, alcohol has its legitimate and important uses. In pharmacy, in the preparation of tinctures it is the purest and least objectionable solvent for many of the organic constituents of drugs, such as resins, aromatic principles and alkaloids. Manufacturing chemists and pharmacists find it necessary to use it largely, and if some plan can be devised whereby it could be furnished them for such purpose free of tax, their endeavor would be stimulated, and the public would be benefited.

This is a problem which the government officials have not been able to solve as yet. The present tax on highwines is $1.10 a gallon. This is proof spirit. The tax on alcohol is $2.20 a gallon, the market price is $2.55 a gallon; the actual cost of producing and handling it is seen to be small. A very large proportion of the revenue of the government is derived from the tax on highwines and alcohol. This tax is supplemented by the tax on tobacco in various forms. The willingness with which this tax is paid shows the wisdom of placing it upon luxuries. This high tax is evaded very frequently by the running of illicit distilleries. These are conducted in the mountains of North Carolina and Tennessee by a class of men who have come to be known as moonshiners, their fires being less conspicuous because of the bright light of the moon. Their output is sometimes known as mountain dew. The men engaged in this illicit work are usually desperate fellows and give the revenue officers much trouble; but the evasion of the tax, when it is possible, makes the industry a profitable one. It will be seen, therefore, that the regulations for the use of alcohol tax free are difficult to devise, as dishonest men everywhere would take advantage of any laxity in this respect. Official alcohols, that is, official varieties of ethyl alcohol, differ only in the strength of the spirit and the freedom from impurities; that known as alcohol is ninety-one per cent by weight. The deodorized alcohol, which is known by the trade as cologne spirit, is ninety-two and one-half per cent by weight, and almost entirely free from impurities. The so-called absolute alcohol is ninety-nine per cent by weight. As a menstruum it is necessary to use variable proportions of alcohol and water. Diluted alcohol is forty-one per cent of ethyl alcohol by weight. It is an interesting fact, illustrated in the mixing of alcohol and water to prepare this, that a marked decrease in volume occurs, equaling about three per cent of the sum total of the two. This is accompanied by an increase in temperature. It shows the very great affinity that alcohol and water have for each other. This affinity is further illustrated by an experiment in dialysis. A bladder filled with diluted alcohol and suspended in water, will be finally burst by the increase of water in the bladder in the action of endosmosis.

In the preparation of tinctures the result is a strong stimulant if a small amount of drug be taken and a considerable proportion of alcohol be used in the menstruum. Physicians find it necessary, at times, to use a strong stimulant either in the form of brandy, whisky or these tinctures. Stimulants, when directed by the wise physician, play an important part in sustaining a patient during a critical period.

The prejudice against the use of stimulants is well grounded, and those who have taken a strong stand against their use are amply justifiable when we view the distressing effects which follow the abuse of alcoholic liquors. It may be doubted whether agitation of the subject

n good. The best temperance lec- that which comes from the busi- an when he says to an employe nes before him in an intoxicated n, "You are incapacitated for We have no use for a man who t come to us with a clear head dy nerves."

re Street.

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[Written for the Medical Brief.]

me Elements in Modern Ophthalmology.

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st, Ophthalmologist and Pharmacist; te from the Department of Ophthal- ogy and Neurology, at McCormick Neurological College, Chicago.

Seymour, Wis.

rnea, aqueous humor, crystalline h its capsule, and the vitreous form what is called the dioptric f the eye. The retina is the end ptic nerve expanded into a thin, layer; it gives the special sense . The optic nerve entrance, or c, has no visual power, it is called l spot, it is at the back and prac- alf way between the top and bot- t about the distance of its own the nasal side, to leave a clear the vicinity of the visual axis at erior pole, where the image is This clear field is called the ma- me one who did not know named a lutea, which means the yellow hat name is misleading, because yellow, it is simply a thickened f nerve cells congregated there, used more than any other part etina and is more highly devel- continued exercise; like any ster of nerve cells it is transpar- almost colorless. If it were of ellow" (as stated in Gray's Anat- edican edition, 1897, and accepted medical men and colleges to this would tint images as a yellow intensify chromatic aberration rfere with vision. It is depressed enter into a cupuled receptacle, the most perfect form to neu- pherical aberration, as parallel ch strike the first surface, near the periphery, suffer more refraction than those which strike it closer to the center, so they reach the axis sooner after passing through lenses of such power as the dioptric system; hence, a concave screen is better than a plane one to receive such images and transmit faultless impressions to the brain, which sees through it. The form of the macula is not the cause, it is the effect of attempts made by Nature to equalize the crossing points of differing rays at the axis, which results in producing a slight hollow where the axial ray perpetually penetrates during the act of vision. Theoretically, the eye must be an achromatic and aplanatic instrument, because Nature uses perfect means to get perfect results; in practice, we find the perfect eye just what it should be in theory. Imperfect eyes are a different proposition, but Nature's law is always the same.

The conjunctiva is a delicate membrane composed of fine nerves and small vessels. It lines the lids and covers the front part of the main globe. The cornea, which is a segment of a smaller globe, is cellular and has no blood vessels. The conjunctiva fits so tightly that there is no room for matter to accumulate behind it; the fluid soaking through it collects between it and the lid proper, and it would become fettered if it were not for the little machines we call Meibomian glands, situated along the edges of the lids and having openings on their face margins which take this matter and carry it off, using it as a sort of grease to keep the lids from sticking together when closed.

In hypermetropia, called hyperopia for short, the effort to accommodate often sets up such friction that it overheats the outer appendages; in exactly the same manner that a tight bearing causes a hot-box in other machinery. When such an eye is suddenly exposed to cold air it gets a chill, which causes the surrounding nerves to contract, thus closing the gland openings, this interferes with circulation and congests the blood vessels, the eye becomes blood-shot, the inflammation increases and starts all sorts of troubles which old-school doctors call diseases, among which granulated lids, blepharitis, styes, and painful irritations of both the extrinsic and intrinsic tissues are com-

mon examples. It is readily proven that these ills are not diseases, but merely symptoms of functional derangement, as there is a simple solution to every natural problem. In practice we prove it by mechanical treatment, giving prompt relief without medicine, and by analogy in reasoning from cause to effect and back from effect to cause. The demonstration is practical, mechanical and mathematical; the results show for themselves, so any one who will can understand.

The course of hyperopia to granulated lids is simple, natural and easily traced. Understanding the rudiments of physical law, and knowing how the normal eye works, any one not biased by tradition or prejudice is qualified to read, understand and know the simple truth. Basing our eduction upon the science of common things, divesting our minds of the mist of superstition, as well as the fear of criticism, we are able to grasp first principles, and the solution is like an open primer. If the meibomian glands remain closed long enough the sebaceous matter accumulates because it can not get out, the heat condenses it by evaporation, it concretes and deposits crystals of solidified secretions, the sharp angles of the crystals cut, scratch and hurt. This gives the victim the impression that he has got sand in his eye. It is natural for any one who does not thoroughly understand the structure and functions of a normal eye to believe as he believes. The truth is, so far as the acute symptom shows, he has sand in his eye, but it is not as he thinks, sand from outside. That sand was produced in his lids as a result of functional derangement and the functional derangement is caused by his physiolcgical deformity, which is undeveloped eyes, or what we know as hyperopia. The hyperopic eye is the only organ which can overcome its own defects in such a way as to perform its function of vision in an apparently normal manner. This is why hyperopes are deceived in regard to their eyes; also, why prominent oculists are sometimes deceived into diagnosing hyperopia as emmetropia, or what is worse, mistake it for myopia, even after having used mydriatics.

The average hyperope, who can overcome his defect by accommodation, is truly to be pitied. He thinks he is sick and takes all sorts of dope for all sorts of imaginary diseases and real ills. He gets no relief, because drugs do not reach the cause of his troubles. He is the most difficult to treat by the scientific method because he sees well, and it is very hard to convince him that his "good vision" is the first cause of all his ills.

Good vision is not proof of good, or normal, eyes, and excellent vision is often to blame for excruciating agony of mind and body. People who have extra fine and sharp vision are always suffering from chronic, nervous ills; the constant strife of the eyes to get vision drains the nerve supply and it depletes the reserve of energy so that there is not enough power left to operate the vascular and viscous systems. They have headache, neuralgia, brain fag, prostration; dyspepsia, constipation, piles; weak lungs, short breath, coughs; weak heart, palpitation, fainting spells, which, in time, run into insanity, gastrobrosis, consumption, angina pectoris, or any of those diseases which owe their origin to wasting and degeneration of one or several parts. The first cause dates from birth and the ills are due to a lack of nutritition to distant organs, because of the excessive demands of the eyes at the fountain-head. The stomach, lungs and heart naturally suffer first, they being clearly related to the eyes, since they get their motive power from the same source, direct from the brain.

Gauging nerve supply and measuring eye defects are not mortal operations, yet to do the work requires more general knowledge and special preparation than to amputate a leg or to treat small-pox. Doctors who do not know the essentials of the philosophy and mechanics of the human body as the groundwork of anatomy and physiology well enough to appreciate the difference between machinery and medicine, or deformity and disease, surely do not know what modern ophthalmology and neurology is, and are not fitted to analyze functional derangements or to prescribe for the ills incident thereto. They are always seeking after strange gods and hoping to do marvels with medicine. They see the quickening (?) of atropine and imagine there is some-

sterious about it, which no one erer or a Berliner professor can The truth is, there is only one he world where ophthalmology right and that is in the United his country is further advanced ork than any school in Europe ere. The chances are that the ninences know no more about sophy of life, elementary physanics, mathematics or nerven their followers, and they can in what the trouble is, what how it causes it, or why it what drugs do, how they do it, ey do what they do.

reteracy of medical writers to lers is deplorable because so e their learning upon what othr write, never inquiring for s into the truth of matters. So continue to declare hyperopia n the acute symptoms relent for hile; but the shepherd ought to t when a curable ailment is bad effects will not come back; ropia is incurable, because it is ty we can not reach with mediation or anything else. The best be done for the victim is to re- of the consequent ills, by ade rays of light to the needs of before they enter the eye, with be worn constantly during wak; the bad effects go and will n, but the deformity is still is not cured. Errors of refracbe corrected for victims of any earlier it is done the better for th and comfort, as if the defect ted to go uncorrected it wears mechanism of the body and is produce lesions at remote parts, ll not yield to the refraction . While it is true that the in due to uncorrected hyperopia luce lesions and tumors at rets, through the sympathy that tween the sphincters, no one oonful of brains in front of his d try to cure tumors with lenses, they might have prevented the they had been worn before they form. All babes (except freaks) hyperopic, because their little ndeveloped, the same as the rest of their anatomy. Some outgrow congenital hyperopia, but many do not outgrow it, and those are hyperopic always, through life.

Should hyperopia in little children be corrected? To be sure, if they suffer from its bad effects. It will relieve the eye of overwork, lighten the nerve-strain and give them a better chance to develop the body, including the hope of outgrowing the hyperopia itself, when the glasses may be laid aside. It is patent that myopic children are always well developed, and in high degrees of simple myopia they are over-developed. So a small amount of simple myopia is not such a bad thing to have, even if it does interfere with long-range vision a little. It appears that Nature did not intend that human beings should have long-distance telescopes for eyes and enjoy good health at the same time. While emmetropia is the ideal condition, it is the exception in our day and eye defects are the rule. One-fourth or one-half of one dioptre of uncorrected simple myopia never hurts any one; the child develops well and is comfortable; but the same amount of uncorrected hyperopia may cause all kinds of inconveniences, even though the victim can see like an eagle. Incidentally, the hawk's intense hyperopia is undoubtedly the cause of his nervous and savage disposition, while the elephant, with his dull vision, is mild and gentle.

When astigmatism exists, either alone or combined with hyperopia or myopia, the case takes on a very different aspect and if left uncorrected it is hell and repeat for the victim from waking to sleeping hours, and often deprives him of sleep.

A community of uncorrected astigmats would be as bad as the howling apes of Central Africa; one of hyperopes is a war-like people, and a community of myopes in low degree, with a liberal sprinkling of emmetropes, would be a people of mild, gentle and affable bearing.

Medicine can only act in one of two ways, mechanically, or chemically. Mechanically it can do one of two things, provoke or restrain nerve action, thus increasing or decreasing peristalsis, which is the source of motion, and the duality of motion is life, so far as we know.

Chemically it may dissolve or neutralize extraneous matter and assist in its elimination, or it may combine with components and add to, or supply deficiency in the system. This is all one can get out of medicine when intelligently used for any purpose, in any place, in any way, at any time. The details of finding out when medicine is needed, or what kind to prescribe, is a different question, which we leave to medical doctors, providing they do not prescribe it to cure deformed eyes.

The effect of atropine (or similar drugs) in hyperopia is to paralyze the nerves of accommodation; when they cease to act the muscles which were actuated by them relax, the glands open, the secretions flow, the pain subsides, the inflammation disappears, and the patient is temporarily relieved, he is not cured. He still has hyperopia; the same cause will produce the same effects, over and over again, any number of times. As curatives, drugs are worse than useless, because the deformity is the same after using them as before, and the inco-ordination is just a little worse from the wear and tear on the working parts of the eye. Emery grinding eases a binding axle-box, helps to start a struggling machine and may delay the destruction of the part involved for a time, but it reduces the effective power of the shaft and shortens the life of the machine. It does not repair damage done to other parts, nor change the construction of the defective part. Lenses do not cure the deformity, either, but they adjust the surroundings to the lame eye and allow it to give the brain correct vision without overwork or pain, and as man is a self-recuperating machine Nature cures the ills in most cases without the aid of medicine. The true ophthalmologist cheerfully turns over to physicians and surgeons acute diseases, blood diseases, operations, and obstetrical cases. Still there is plenty to do for specialists who understand their business and work honestly for the good of their patients. The scope of ophthalmology and neurology is as broad and deeper than the field of medicine itself, because it reaches causes nearly every time, while medicine reaches effects hardly any time. Disease is not a cause, it is an effect, but all effects are not diseases, most of them are symptoms of functional derangement.

To analyze the causes of human ills and remove them is the work of the ophthalmologist. He gauges nerve supply, learns the patient's capacity and removes the nerve-strain; he measures eye-defects and removes eye-strain. He knows that pure air, cleanliness, proper food, consistent exercise and sufficient sleep are the greatest restorers. He knows that the best any doctor can do is to help Nature to establish normal conditions and that Nature only can cure, so he does not glorify himself for curing anything. He knows how to do his part and teaches the patient how to do his part so as to give Nature the most freedom and the best opportunity possible to do its work well. He knows when his work is going on right, and he knows when his work is finished, because he deals with tangible things, each step has a meaning which affords a line of proved tests. The patient's condition being definitely established, he knows if the case is for him, for medical men, or for both combined. He knows his limits and keeps within their bounds.

The elements of success are as simple as the elements of natural law. Time is valuable, we must not waste our energies on fruitless efforts, lest they fail us in the hour of need. Do one thing at a time, finish that before trying the next. "Work till you are tired and sleep till you are rested," is the motto of our school, and it is the watch-word of all professional men worthy of the name.

. Earnest ophthalmogists have no time for what is called fashionable society or the frivolities of gossip. The competent do not seek or want medical or optical practice acts and are opposed to class legislation on general principles, because such laws are born of small, mercenary minds, are not intended for the public good, and have holes in the corners through which any one gifted with five sound senses can discern rats ogling for the whole cheese and imagining themselves growing plump and sleek at the expense of the dupes. No one except those who want office, mislead physicians, misfit oculists, and misthink opticians with mingled misgivings as to their ability to stem the tide of progress, want statute

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ten for the MEDICAL BRIEF.]

and Its Simplest Form of Treatment.

Y S. SHERWELL, M. D.,
Diseases of the Skin in the Long
College Hospital, Brooklyn; Attend-
sician to Brooklyn, and Long Island
Hospitals. Brooklyn, N. Y.

like supererogatory work to
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or two on the diagnosis of the
tself, not always an easy one.
nd orthodox cases, this is read-
the intense pruritus, constant,
sing at night, at the time of
the detection of burrows, or
in the ordinary sites, as be-
fingers, on the wrists, nates,
etc., are all well enough, and quite distinctive in people dirty, or with dirty avocations, or at any rate in those not overclean; but it has been my lot in hundreds of cases referred to me, to find almost everything noticeable, save pruritus, absent, where a relatively high degree of cleanliness has been observed, etc. Now there are two or three sites of election of the parasites in these cases, which may be noted as being diagnostic, in these cleanly, or relatively slightly-affected individuals, to which I would call attention. First in the male, either an adult, or over the infantile age, there will be usually found an efflorescence, a little papule or two, or papulo-vesicle, just on the shaft of the penis, usually held by the fingers in the act of micturition; that being found, as a rule the diagnosis is clear. In the adult female, or young girl, the same sort of lesions will be uncommonly likely to be found on the breast in and around the aureola and nipples.

In both cases this is to be accounted for by the fact of the infecting cause (the young acari) being conveyed to those parts by the necessary handling of the male organ many times during the day, in the act of urinating, and the equally certain act of the female in rubbing or scratching at night the bosom which has been under corset pressure or constraint the most of the day. This is the reason, as above said, for these elective points. A pruritus in these regions with some evident papular lesions, or their remains, probably some on nates, and around waist, and also it may be around wrists, and your diagnosis is, as I think, certain. It matters not whether the fingers are affected, as is so commonly shown as typical in the dermatological picture books, frequent washing of the hands, or occupation involving this, does away with this index.

For my recommended treatment, then: The diagnosis being made, is to say again not to follow out the usual rules given in the books, those by the older authors especially, to rub on strong sulphur ointments, which are equally disagreeable to sight, touch and smell; nor necessarily to be macerated, scrubbed, and afterward inuncted, as is so common a practice in the European clinics, but to bathe fre-

quently and lightly, and as frequently to put on clean underclothing and, as far as possible, bed linen; so as to keep away the male acari, who it will be remembered, do not burrow or have their habitat in the skin, as do the female, but who, on the contrary, live on the surface or folds of the skin itself, or in the garments immediately next to it.

I dust on then or lightly rub in each night, at first, on the whole surface of the body, but more particularly on the portions most generally invaded, a small amount of the washed flowers of sulphur (sulphur loti) and sprinkle a little in the bed, say one-half a drachm (or one-half teaspoonful) in this way, by raising the upper sheet and striking thereon a smart tap, it will be so disseminated on the general surface of the sheets or blankets that it will not be noticed. This by heat of body will, without discomfort to the patient, generate enough sulphurous atmosphere to make it intolerable for the parasite. Usually this gives almost instant, though not perfect relief; the itching habit is too confirmed usually for that, but in a few days the diseased conditions pass away without leaving any irritant effects on the skin or irritation eczemas, which so often follow the use of strong unguents, or lotions, and without odor at any time that can not be covered with a few drops of strong perfume, and without the least uncomfortable feeling by day, or any esthetic annoyance, and if carried out rightly, freedom from all symptoms will result in about a week in the ordinary case.

Of course, such extreme cases as occur in the indescribably dirty races, as of the Russian emigrant, to take a type; cure does not follow so quickly, but even in these would be found efficacious in a slightly protracted time.

Another great advantage of this method is this, that the whole family can be treated at once, and it is seldom among the poorer and more crowded classes, at least, that one does not find others in the same family group also affected.

One ounce or one ounce and a half of sulphur applied in this easy manner is enough for a whole family, if used reasonably; due attention should be paid to bathing, renewal and cleansing of under and bed clothing. It may be remarked that all applications of the sulphur, in any way, should be after the bath, and after the changes of clothing.

I have so often seen in my visits in the European clinics patients probably cured in an extremely rapid manner, but who, with that apparently accomplished, are sent with their thinned, abnormally-sensitive cuticles back to their homes, wives and children, to be as surely reinfected again as if they had never been treated. It seems to me I can scarcely be too insistent on the last few paragraphs.

It would seem as if it were almost unnecessary to dwell upon the advantages of this mode of treatment, in conditions where large bodies of men, women or children are in restricted and intimate quarters and companionship; as, for instance, in camps, lumbering regions, factory quarters, asylums, and the like. Curative and prophylactic reasons are equally obvious.

I can only add force to this argument, it seems to me, by saying, in conclusion, that I believe the method to be the most cleanly, physiological, and reasonable for the removal of this annoying skin affection.

33 Schermerhorn Street.

[Written for the MEDICAL BRIEF.]

The Importance of Early Diagnosis in Malignant Diseases of the Uterus.

BY THOMAS A. ASHBY, M. D.,

Professor of Diseases of Women in the University of Maryland; Surgeon to the University Hospital; Consulting Gynecologist to the St. Agnes Hospital; Fellow of the American Gynecological Society, etc., etc.
Baltimore, Md.

There is no subject of greater importance to the general practitioner than the early diagnosis of cancer of the uterus. There can be no question of the fact that there is a marked increase in the number of cases of uterine cancer, and that numbers of lives are lost annually by its neglect, in the early stages. The failure to investigate these conditions in their primary stages is a sad commentary upon the intelligence of the general practitioner of medicine. Annually a large num-

ncer cases are presented in my
ch have been referred to me by
al friends or met with in hospi-
e. In more than ninety per cent
ases the disease had made such
when first examined that a radi-
ion for the removal of the dis-
rus was a matter of impossibil-
lative treatment only could be
to arrest the progress of the

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gards it, or if she consults a physician she disarms his suspicion or declines a proposition looking to an examination of her condition. By this hesitating policy valuable time is lost and extensive infection may have taken place before the most alarming symptoms—pain, and foul discharge—have become apparent. In this way the most important diagnostic symptoms are overlooked by the patient.

There is, perhaps, no disease so treacherous and so indulgent to the suspicions of the patient, and to the careless medical observer. Hemorrhage, and even foul discharge, may continue for months before an investigation is sought by the patient or is urged by the physician in usual attendance upon the family. Alarming symptoms are in this way overlooked or misinterpreted by the patient, and her physician may fall into the same error, especially if the woman has arrived at or near the menopause. The disturbances which occur in the lives of many women at the close of the menopause are usually regarded as incidental to the subsidence of the function, rather than the outcome of pathological conditions. This is a fatal error. In health the menopause should cease as naturally as menstruation began in early life.

Hemorrhages occurring subsequent to a complete suspension of menstruation is often viewed as a return of the menstrual function. These recurrences, after complete subsidences, can invariably be traced to pathological influences. Any neglect of these important signs of uterine disease at a time when the female pelvic organs should be at rest, is almost fatal to the welfare of the patient.

At the present time no charge of neglect should be brought against the regular graduate of medicine and such criticisms as are applicable may be limited to that class of men whose training has been defective, and who have been led away from modern methods of investigation which are now employed by regular practitioners of medicine.

The clinical diagnosis of malignant disease of the uterus in the primary stages is often difficult. The microscope is the sole reliance, still there are certain features and symptoms in the behavior of the disease which should lead one to sus-

pect and should open the doorway to a more thorough investigation of the pathological conditions present.

The causes of hemorrhage in woman occurring at any period of her life should always be investigated. In non-malignant disease of the uterus, with the exception of certain forms of intrauterine fibroid tumor, hemorrhage seldom recurs after a good curetting of the uterus. In malignant disease of the uterine cavity this is not the case. A recurrence, sooner or later, will follow in every case and continue after two, three or more curettings are made.

A malignant disease is progressive in its action, whilst innocent conditions improve under proper treatment. Recurrences and progressive changes are clinical signs which should always lead to accurate methods of diagnosis. The patient should be examined from time to time; scrapings of diseased tissue should be removed for microscopical investigation. The character of the process should be watched with care and radical measures should be instituted the very first opportunity presented after diagnosis of the disease is made. No time should intervene between the removal of the uterus and the prompt recognition of the condition. In no other way can the progress of cancer be arrested.

1125 Madison Avenue.

[Written for the MEDICAL BRIEF.]

On Diet in Typhoid Fever.

BY GEORGE RICHTER, M. D.,

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There is probably no disease, the nursing of which is so interesting, the treatment so full of problems, as the "typhoid." Modern medicine has furnished us with a number of aids in diagnosis, available at a period of the disease when the attentive practician is beyond all doubts of what he is dealing with. The typhoid bacillus, the diazo-reaction can be demonstrated at a time when, as a rule, there has been no question any more about the nature of the trouble. If one would begin to institute proper treatment only after verification of diagnosis by microscope and test-tube, it would probably be much too late.

The most important problem in the treatment of typhoid is still the care in nursing in every respect. All specific treatments have been failures. Though we understand perfectly well the pathological manifestations, a treatment of those symptoms, the disinfection of the alimentary canal, the combating of the fever, have but little influence upon the course of the disease. It should always be remembered that epidemics are apt to exhibit a much different character, that experiences gained in one epidemic will be different in the next, much as in diphtheria. Here, also, the local manifestations are evidently accessible to treatment, but, as a rule, with little benefit to the patient. At one time almost any method will "cure," at other times no form of treatment saves the sufferer, not even the antitoxin.

In typhoid the careful physician still relies principally upon the proper nursing, the most important part of which is the adequate food. Scientifically speaking, one endeavors to supply food which shall be digestible under prevailing conditions (the impaired activity of the stomach and digestive glands), harmless to the inflamed surface, with its exulcerated spots and exposed blood vessels, and also nourishing sufficiently to at least prevent inanition, one of the great factors in causing "debacle," the breaking down of the organism.

It is impossible to supply the patient with the required amount of "calories" in his food. As the nourishment must be given in liquid form, and experience, the only reliable guide, proves that milk is, after all, the most satisfactory food, we would have to introduce quantities of milk, which only very few of the patients could swallow or digest.

Other foods are frequently tried in cases where the patient has an absolute aversion against milk. Strained gruels, white of egg stirred in water, various infant or invalid foods occasionally are acceptable, but more frequently rejected. Peptones and similar "predigested" prep-

have disappointed many. Of late has been directed towards gela- ch undoubtedly is a great help ng hemorrhages. There had been ble dispute about the nutritive gelatine. This may be consid- led now. Gelatine taken alone, clusion of carbohydrates and fat, ustain life. But partaken of to- th the other constituents of nor- , it will be a great saver of al- hich is wasted by the fever in o an alarming extent. It is most igested, never causing any kind s in the stomach, and being it- utely tasteless, it may be given o any taste of the patient.

rcial gelatine is not always taste- apt to exhibit a very disagreea- r of common glue. Where no le is on hand it may be prepared after the following recipe:

number of calf's feet or, better knuckle-bones of cattle, clean st carefully, chop them into e size of a walnut, put them in ith fresh water and bring them w boiling. After about fifteen pour this water away and add ter. Boil slowly for about five ding enough water to keep the ered. Then strain through fine After the liquid has cooled dd the white of two or more again heat until the liquid be- oil. The egg-white will coagu- t in a place where it will cool eing careful, however, not to let ur. A trace of salicylic acid will t. All impurities will gradually n and a clear liquid remain on s is a pure solution of gelatine, cooling forms a stiff jelly. As ceptable and beneficial food for id patient it may be added to milk, or flavored with lemon, or r grape juice, etc. It is also ex- ith cream or as a wine jelly rry or port wine). In a number have succeeded in keeping the strength up by giving liberal of such gelatines, alternating . They all liked the diet better other.

Broadway.

[Written for the MEDICAL BRIEF.]

The Cause of Malarial Fever.

BY J. MORRISON, M. D., PH. D.,

Formerly Professor of Chemistry and Toxicology in the Medical Department of the National University, at Washington, D. C.
Washington, D. C.

In view of the prevalence of both malarial and yellow fever in the Panama canal zone during the winter months, as reported in the daily press, and of the certainty of a great increase in the mortality from these diseases in warm weather, I desire to take this opportunity to place before the public the true cause, and to suggest the only remedial measures that can be taken to prevent an attack of either disease on those engaged in the pestilential region through which the canal runs.

Malarial fever is known under the names of "fever and ague" and intermittent fever, or simply by "malaria," a term derived from the Italian "mala," bad, and "aria," air, and has been known from time immemorial. It has been one of the scourges of man ever since his advent on this planet, and accordingly it is referred to among the earliest records of human experience. Hippocrates, the founder of medicine, who flourished about four hundred and sixty years before the Christian era, describes forms of fever identical with those of malarial or intermittent fever.

The cause was believed to be due to the inhalation of poisonous air, but the source and nature of which was unknown. It remained for chemistry, a science of modern origin, to explain the exact nature and composition of this poison, which we shall decribe presently.

Within the last decade, a new medical vagary has sprung up, called the germ theory of disease, which assigns the cause of all diseases to the existence of a particular germ taken into the system through water, food or the inhalation of air, and accordingly, the advocates of this theory maintain that malaria is caused by the bite or sting of a certain breed of mosquitoes, called "anopheles." They contend that the poison or plasmodium of malaria is a protozoön which lives upon the

red blood corpuscles or swims freely in the blood current, its life cycle being equal to the interval between the symptomatic chills. They also hold that this poison is elaborated in the stomach of the anopheles, which becomes a carrier of the poison between a person affected with malarial fever and a sound individual who may be stung by such poisoned anopheles. Not the sting of every anopheles is capable of communicating the disease, but only those which have become affected by stinging a fever-stricken person, but as to how the first anopheles become so poisoned, or rather, how the first person contracted the disease, does not yet appear. All this is pure assumption; has never been satisfactorily demonstrated and is utterly untenable in the face of the following facts.

Malarial fever has been frequently known to disappear from localities independently of the presence of mosquitoes.

Nearly a century ago, the Rideau river, which flows into the Ottawa river at Ottawa City, Canada, was converted into a canal by constructing dams and locks at certain places, and as a result, large tracts of densely timbered land lying along its banks, were flooded to depths varying from a few inches to as many feet. The trees died and fell into the water, or were cut down in winter for fuel, leaving the stumps and branches to decay under water. In these shallows aquatic plants sprang up and their subsequent death and decay increased the quantity of carbonaceous matter undergoing decomposition. For some fifteen or twenty years after the construction of this canal, malarial fever was very prevalent along its entire length, and especially wherever the shallow marshes existed. When this mass of vegetable matter was fully oxidized or used up, and the land along the banks cleared of forests and cultivated, malaria completely disappeared and for the last half century or more the disease is unknown in that region, notwithstanding the presence of mosquitoes, which are always there in countless millions. Now, it is quite evident that the mosquitoes could not have been the cause, otherwise the disease would still exist there. Many more such cases could be mentioned, if space permitted.

The New Jersey mosquito is as voracious and blood-thirsty as any of his brethren, but that State is by no means a malarious one, as is evident from the number of health resorts in all parts of the State.

Malaria, however, does exist to a slight extent in the vicinity of the marshes or flats, but the mosquitoes, whether of the anopheles breed or not, are no more active there than elsewhere.

A few years ago the British Government despatched a military force into West Equatorial Africa—one of the most unhealthy regions in the world—for the purpose of punishing some of the tribes who had committed some depredations on the adjacent settlements. At the end of the first day's march into the interior, they encamped for the night on an open plain, at a considerable distance from either forest or marsh. The commander, who evidently knew the nature of the locality, ordered every man to get under cover of his tent at sunset, and to remain there until sunrise. Prince Henry of Battenburg, one of the late Queen Victoria's sons-in-law, a Captain Ferguson and some other officers, thought proper to disobey this order and accordingly, after the moon rose, strolled out for a walk in the brilliant moonlight. On the following morning they were all seized with a violent chill, sent back to the coast, placed on board of a ship and put out to sea, but, notwithstanding all that could be done, the prince and one or two others died in a few days. Not one of those who remained under cover of the tents was attacked. Nothing whatever is said about mosquitoes in this case.

It can not, however, be doubted but that the sting of any poisoned mosquito, or indeed of any other poisoned insect, may in scrofulous persons cause a form of blood-poisoning which may give rise to symptoms resembling those of malarial fever. The bite of the common stable fly and of other harmless insects has been known to produce fatal results.

It is the female mosquito that stings. She inserts her proboscis down through the pores of the skin and injects a fluid to dilute the blood before she sucks it up. The fluid injected is formic acid, a secretion of the parotid gland which, in the

, is developed out of all propor-
the size of the insect. Formic
ne of the most formidable poisons
nature is found in the common
rtica dioica) and in bees, wasps
r stinging insects. It is a deriv-
methylic, or wood alcohol, to
bears the same relation that
id (vinegar) does to ethylic or
alcohol.

or wasp injects a much larger
than a mosquito, but malarial
s never been known to result
sting of these insects, and, be-
ne symptoms of formic acid
g are not identical with those of
fever.

rue cause of malaria is to be
the inhalation of the miasmata
rom the decay or putrefaction of
eous matter under certain con-
f heat and moisture.

n and oxygen unite to form two
ds, and only two, viz., *carbon*
e, having the composition of one
carbon and one of oxygen, and
dioxide, having one atom of car-
two of oxygen. Under ordinary
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h great difficulty.

n monoxide was discovered by
brated Dr. Priestley, the dis-
also of oxygen, and in fact the
of modern chemistry; but its
ure was not made known until
e beginning of the last century
Cruikshank, another English
showed that it is a powerful nar-
ison, capable of destroying life
even when inhaled in minute

ments, undertaken with the
of determining the minimum
of this gas which would render
unfit for respiration, have shown
atmosphere containing only one
redth of carbon monoxide by
is rapidly fatal to birds and
imals. Carbon monoxide is al-
oduced by the oxidation or de-
rbonaceous matter when the sup-
xygen is inadequate to the pro-
of the less harmful carbon di-
It is a trifle lighter than air, its
gravity being .969, air being
unity. It is one of the few gases which can be condensed to a liquid with great difficulty, its critical temperature being 222° F., and its critical pressure thirty-five atmospheres. It is very combustible, but a non-supporter of combustion; it burns in the air with a peculiar blue flame, emits no odor and leaves no deposit of solid matter. In the act of combustion it takes up another atom of oxygen from the air and forms carbon dioxide. The same change takes place, but more slowly, under the direct action of sunlight. It is soluble in water to the extent of about six per cent by volume. It is a perfectly neutral oxide, displaying neither basic nor acid properties.

By reason of its ready oxidation to carbon dioxide, it is a powerful reducing agent, many of the noble metals being precipitated in the metallic state from solutions of their salts by carbon monoxide, even in the cold.

It unites with two atoms of chlorine to form the oxychloride of carbon or phosgene gas. This reaction is brought about by exposing to sunlight a mixture composed of equal volumes of chlorine and carbon monoxide, when the color and odor of chlorine disappears and the mixture shrinks to one-half of the original volume. In the dark the gases display no affinity for each other whatever. This remarkable property of combining with chlorine in sunlight and not in the dark, has led to the discovery of a very delicate test for its presence. If a piece of white paper be well moistened with a solution of palladious chloride and exposed in the sunlight to air containing the merest trace of carbon monoxide, it will be blackened. In this reaction, the carbon monoxide decomposes the palladious compound, unites with the chlorine to form phosgene gas and sets the metal free, which blackens the paper. No other known substance will produce this result. Under the influence of heat and moisture, the green parts of plants, growing in dark places, in which there is little or no sunlight, evolve carbon monoxide. Aquatic plants and those growing in shady and swampy places evolve it in greater quantity than those growing in dry soil. While vegetation aids in purifying the air by absorbing the carbon dioxide, re-

taining the carbon and emitting the oxygen, it leads also, under certain conditions, to the evolution, in small quantities, of one of the most poisonous gases known to chemical science and differing from most other noxious gases in the fact that it cannot be detected by its color or odor, but only by the test just given.

Carbon monoxide is a constituent of ordinary coal or illuminating gas, and sometimes of sewer gas, and constitutes their most poisonous element. The gas is always produced by the active combustion of carbon in an ordinary stove or grate fire when the supply of oxygen or air is insufficient to form complete combustion. The blue flame which plays over the surface of a coal fire when the damper is closed is carbon monoxide undergoing conversion into carbon dioxide.

In the laboratory this gas is easily prepared by the action of sulphuric acid on oxalic acid. The latter is composed of one molecule of carbon monoxide, one of carbon dioxide and one of water, and resembles common salt in appearance. On adding, say, an ounce of strong sulphuric acid to about half an ounce of oxalic acid, the former abstracts the water and sets free a mixture of the two gases, which is passed through a bottle containing lime-water or a solution of caustic potash, which absorbs the carbon dioxide to the form of carbonate of lime or potassium, while the carbon monoxide passes out through a delivery tube and may be collected over mercury or ignited. Great care should be taken in performing this experiment to avoid inhaling any of the gas, otherwise serious results may follow.

(To be continued.)

[Written for the MEDICAL BRIEF.]

Some Observations Upon the Preservation of Anatomical Material.

BY WM. C. DUNAWAY, M. D.,

Demonstrator of Anatomy in the Medical Department of the Arkansas University.
Little Rock, Ark.

For three years past I have been using a method of embalming my anatomical material, which has revolutionized the interest in this study among my students. In years past dissection was a sort of bugbear to both student and teacher from the fact that in smaller schools anatomical material was not always available, and the material on hand was often so decomposed and gave off such an offensive odor that it could only be used in the coldest weather. Since introducing this method of preparing the anatomical material, the dissecting room is one of the most popular places, and the study of anatomy is one of the most interesting and pleasurable in the college course. We take the material as we can get it at any time of the year, embalm it, and by rubbing the extremities with vaseline, and covering the body or part of the cadaver with cheese cloth, the material can be preserved and kept sweet and nice from year to year.

A few cautions must be observed in the care of the anatomical material. The entire surface should be kept covered to keep the flies away, and wet cloths applied from time to time to prevent the surfaces from drying and becoming hard. Sometimes a light mold forms, but this can be prevented by the use of dilute acetic acid, which renders the parts soft and pliable.

So far as I know, this method is the best in use for preserving anatomical material, and it seems to me that if its use was more general, a greater interest in the study of anatomy would follow. Many practitioners in smaller towns who have specimens of interest, find themselves too busy to dissect at the time, and do not know how to preserve their material until a more convenient day.

How many doctors pursue the study of anatomy after leaving college? How many general practitioners are as fully informed on this subject as they should be? It is not always a question of time in the case of the busy practitioner, but the fact that his material is not always available. By the embalming method there is no reason why every practitioner should not have anatomical material available for study at all times, and their studies can be pursued in spare moments with great advantage to themselves and the profession in general.

Corner Second and Louisiana Streets.

ten for the MEDICAL BRIEF.]

Structures Versus Plant Fragments.

ITTS EDWIN HOWES, M. D.,
Boston, Mass.

t valuable knowledge we have
arding drug action has been
t from fragments, but from ex-
ion with their entire structure.
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must admit that the slightest
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ne formula for sulphuric acid.
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ld sulphurous acid in its place.
$_2SO_4$ is known as sodium sul-
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nedicine, but their action is
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convincing of the folly of striv-
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estigators in the action of
remedies have made use
whole plant structure in
perimentation. the results
have been due, not to
resins or glucosides, but to the
effect of all the medicinal in-
which have been extracted from
substance. The knowledge thus
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oid, for instance—do the work
been accomplished by the en-
has always been a most la-
failure. Not only that, but the
h substances has been carried
ay on the road toward thera-
ilism.

Veratrum viride has been broken up into a variety of parts, both alkaloidal and resinous. There is no authority, however, that will attempt to prove that, to any of these proximates can be ascribed the value of the veratrum viride. Not only is this a fact, but those fragments are of such a nature as would throw the chemical world into the utmost confusion should this be undertaken. This has been the case since Charles Bullock and others, twenty or more years ago, wasted their time in the attempted production of veratrum educts and products.

Quinine has long been regarded as the active principle and representative of cinchona bark. The physician, who has made extensive use of the fluid preparation of cinchona in his practice, knows very well that he can get results from that which are impossible from the quinine. Not only this, but also that the evil results arising from the administration of the former are not met when the latter is prescribed.

Chionanthus virginica is a tried and trusty remedy, but no chemist would think of presenting the scientists of the day with a formula which would produce any product that would in any way represent chionanthus. The base allegation that a product called chionanthin is made by those people who give no evidence that they have anything of the kind—and dare not do so—is a type of many statements made concerning a great variety of drug substances.

Collinsonia canadensis has a reputation established by over fifty years successful use among the eclectic school. It is not possible to produce a fragment which would represent this agent. There is not a chemist of any repute that would think for an instant of making the statement that such an article could be manufactured by a method which he would care to place before the chemical world.

Ergot has never yet yielded to chemical manipulation anything that would take the place of this drug. The so-called ergotine is simply a purified extract of ergot, and sometimes this process is not so well performed as it might be. Challenge any manufacturer to give you the chemical formula of ergotine and you will not be troubled with responses. Those

who speak of any educt of ergot as having the properties of that drug show that they are either ignorant, or else pretenders.

The manipulation of belladonna yields a very active alkaloid—atropine. This does not exist as such in the plant, but is a product of the chemist. Atropine is an intense poison and very active. The rapidity of its action is such that when applied to the eye it produces, in a few minutes, what the belladonna would take hours to accomplish. Notwithstanding atropine was discovered thirty years ago, its use is still usually confined to local applications, usually the eye. Manufacturers of the various belladonna preparations, used in medicine, realize the structural value of the drug and accept the fact that no fragment, made by their chemistry, can produce its action. Moreover, the alkaloid is recognized by chemists as a hyoscyamine compound instead of an atropine compound.

These statements could be extended and applied to a long list of remedies, but enough has been written to show the fallacy of substituting fragments for the entire product.

Those physicians who, in their practice, depend to the greatest degree upon the fluid preparations which represent all of the drug constituents, are the ones that have the greatest amount of faith in their medication. The positive assurance with which they prescribe such agents impress the patient favorably and thus aids materially in their remedial action.

[Written for the MEDICAL BRIEF.]

A Brief History of Modern Surgery.

BY E. J. KEMPF, M. D.,
Jasper, Ind.

(Continued from page 331.)

Orthopedic Splints.—In 1739, Heister described and recommended a T-shaped splint of steel. Neck-shoulder and pelvic-straps were employed to retain it in position. Nuck's spinal brace is described in M. LeVacher's work, "Traite du Rakitis," published in 1772. The brace had a head-rest, which was fastened to the corset by means of a staff in a metal socket. In 1794, Schmidt, of Marburg, devised an instrument whereby the weight of the upper part of the trunk was partially supported. Darwin, in 1796, describes two machines for the use of recumbency in the treatment of spinal curvature, and after these are copied the mechanical couches which have been in use since that time. Little, in his book "On Deformities," published in 1853, gives a picture and a drawing of an apparatus, or splint, or brace, that closely resembles the Davis splint now in use, improved by Taylor, and others. In 1868, Banning, of New York, published a system of mechanical therapeutics, and describes the Banning spinal brace, still in use. It must be remembered that the main purpose of all these splints is to treat spinal disease by means of fixation and extension. In 1831, Dr. J. Randolph published Dr. P. H. Physick's method of treating hip disease by means of a fixation splint.

Since then many hip splints have been described, pictured and published, among the most important being Martin's hip splint, Sayre's short hip splint, Andrew's ischiatic crutch, Bauer's hip splint, Taylor's hip splint, Thomas' fixation splint, etc.

Orthopedic Operations.—J. and E. Boeckel, in Germany, Israel and Reclus, in France, removed necrotic bone of the vertebræ through an opening made into a psoas abscess in the loin. But in 1885, Reves, in his "Bodily Deformities," remarked that the operation was hardly ripe for a name. The first recorded operation of excision of the hip-joint was by Hudson, of Dublin, Ireland, in 1829, the patient being a male adult. Brodie operated in 1836. Charles White first suggested the operation in 1769. In the United States, Dr. Oliver C. Wilcox, of Easton, Pa., operated for the first time in 1849, on a patient thirty-five years old. For correcting the deformities of hip disease, Dr. Reah Barton, of Philadelphia performed the first operation in 1826, and Dr. Sayre performed the next operation to correct the deformity in 1862.

Fractures.—In compound fractures, the essential principles of treatment consists in endeavoring to secure the earliest possible union of the wound, and to treat it while it is open, in accordance with the

s of the antiseptic method. Re- now obtained that were hardly of in ancient times, and a com- cture heals almost as readily as one under modern aseptic treat- n cases complicated by much of the soft parts, Professor method of "thorough drainage," quent irrigation with a weak olution, has given excellent re-

ous union of the shaft of a long en there results notable de- r disability, the modern surgeon s the case by means of resection ojecting bone, or by dividing the resetting it correctly, and then it. All of which has been made by antisepsis.

tures of the patella the bone is ogether by wire or catgut, and esults have been achieved. A of silk is sometimes placed he ligamentum patellæ and the the quadriceps, according to the timson, of New York. Of course, rations must be done only by trained surgeons, and by them er the strictest antiseptic pre- according to modern surgical

res of the clavicle are also fre- utured together, where the sur- s permit it. Fractures of the where the deformity can not e corrected, are also treated by the ends of the bone together.

neral employment of anesthesia amination and the initial treat- ractures, especially of those near ing joints, has made diagnosis urate and treatment more intel- The application of the Roentgen the diagnosis of fracture of already contributed much to- accurate interpretation of the signs of fracture. Antisepsis ed to operative surgery a very field in the treatment of frac- he final results after the open in- closed fractures emphasize the anesthesia, antisepsis, and the ray are making the knowledge res more exact, and their treat- s complicated.

Plastic Surgery.—Plastic surgery is that department of the operative art which contemplates the repair of defects and deformities, congenital and acquired. Limited in its early history to the restoration of parts destroyed by trauma, plastic surgery has, in the course of centuries, widened its range of utility until its present achievements have been carried to all parts of the body covered by the general integument and to many of the cavities lined with mucous membrane.

Although Galen and Paul of Aegina repeated the precepts of Celsus in regard to plastic surgery, the little that was known of plastic operations lapsed into an oblivion even greater than that which befel general surgery, and from which it was not recovered for over a thousand years. In 1442, Pietro Lonzano, Bishop of Lu, published a statement in the "Annales du Monde," that a Sicilian, named Branca, had found a new method of supplying the loss of a nose. Among the pupils of Branca was his son, Antonio, who had improved and extended his father's method by taking the integument from the arm and by replacing the loss of lips and ears in the same way. It remained, however, for Gaspardus Taliacotius to develop plastic surgery to a degree unknown before him, and to publish the first scientific work on it two years before his death, in 1599. In it are described his methods of operating and of retaining the parts in position; and the illustrations accompanying the text have been utilized from century to century by almost all authorities who have written upon the subject. Taliacotius may be credited with being the father of conservative surgery in its best sense. In 1794, a Madras journal gave an account of a successful rhinoplasty practiced by one of the Koomas, who transplanted skin from the forehead. In 1814, Carpue successfully replaced the lower portion of the nose, following the Madras method. In 1816, Von Graefe introduced plastic surgery on the continent, giving preference to the method of Taliacotius, or Tagliacozzi. Associated with the more recent progress of plastic surgery are the names of Skey, Liston, and Fergusson, in England; Sedillot and Jobert, in France; Dieffenbach, Langenbeck, Fritze, and Thiersch, in Ger-

many; and the elder Pancoast and Gurdon Buck, in the United States.

Brain, Surgery of the.—Although in 1871 Broca located a cerebral abscess in the speech center, and greatly relieved the patient by trephining, modern brain surgery begins properly with a modest report of a case by Macewen in the *Glasgow Medical Journal* for 1879, XII., 210, and later a more elaborate paper by the same author, in the *Lancet* for 1881, II., page 541. In these papers the author narrates three cases occurring in 1876 and 1879, in which cerebral disease was located by the focal symptoms. They were successfully operated upon. In 1884, Dr. Hughes Bennett and Mr. Godlee described a case, in the *Lancet* for December 20, of subcortical tumor of the brain, diagnosticated by the localizing symptoms alone and before operation. The tumor was successfully removed, but the patient subsequently died of suppurative meningitis. The attention of the medical world was instantly arrested by the precision of the diagnosis of the case, the success of the operative technique, and the evidence it afforded that we could successfully cope with heretofore hopeless cases.

The first American paper on cerebral tumor, by Hirschfelder and Morse, of San Francisco, appeared in the *Pacific Medical and Surgical Journal* for April, 1886. The case was that of a successful localization, but unsuccessful removal, of a brain tumor.

Two most remarkable papers on brain surgery, however, were published soon afterward by Mr. Victor Horseley, in the *British Medical Journal*, for October 9, 1886, and April 23, 1887. In these papers ten cases were related, all of which were correctly localized; only one died, and the remainder were either benefited or cured. These cases of removal of brain tumor, and even of portions of diseased brain tissue, the cause of epilepsy, intense headache, etc. In the United States, John B. Roberts, R. W. Amidon, Seguin and Weir, and W. W. Keen, deserve special mention for excellent essays on brain surgery. In Germany, the most elaborate and important paper was published in *Langenbeck's Archiv*, by von Bergmann, on this very important and interesting subject.

In 1888, Mr. Horsley published, in the *British Medical Journal*, an account of the removal of a tumor from the spinal cord, which was soon followed by other reports. These improvements in surgery were only made possible by modern antiseptic technique.

Diseases of the Stomach, Liver, Bowels, Pancreas, Spleen, Gall Bladder, must date their history from the day of the awakening of anatomy, physiology, and pathological investigation; and our medical and surgical knowledge must be attributed to the better knowledge of *post-mortem* work, and the experiments in the laboratories of the present advanced condition of the medical sciences.

Diseases of the Kidneys.—In 1827, Richard Bright first pointed out distinctly the connection between certain cases of dropsy and morbid changes in the kidneys, both structural and functional. The study of the diffuse inflammation of the kidney dates from the investigation of Bright, and the name of "Bright's Disease" has ever since that time been applied to diffuse affections of the kidneys, accompanied during life by excretion of albumen. Whilst we no longer follow the idea that Bright's disease is a labeled disease, made out as soon as we discover albumen in the urine, to Dr. Bright must be given the credit of being the first to draw the attention of a host of workers to a class of diseases as interesting as important to the human race.

The literature of the subject is enormous. The most important are the works of Rosenstein, Klebs, Wagner, Conheim, Bartels, Cornil and Ranvier, Delafield and Prudden, Grainger Stewart, Dickinson, George Johnson, Millard, Tyson, Charcot, Traube, Trousseau, Mahomed, Weigert, and many others, whose writings have been studied by the physicians of the present generation.

Edebohls.—Strange to say, the latest triumph in American surgery has been achieved in the cure of Bright's disease by chirurgical means. Dr. George M. Edebohls, professor of the diseases of women at the New York Post-Graduate School, published in the *Medical News* of New York, April 22, 1899, the record of an operation performed for the cure of chronic Bright's disease, by renal de-

The operation consists in
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its fatty capsule. Since then,
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times, the recoveries being in
radical and permanent.
will retain its place in surgery
nate operation remains to be

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en for the MEDICAL BRIEF.]

eventive Medicine.

Y D. A. BLAIR, M. D.,
Ellsville, Ill.

ontinued from page 336.)

-We refer now to syphilis.
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ave been cursed with it two
ars before Christ, and it has
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orld ever since, under many
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and from this origin spread
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adopted, almost universally,
al treatment as the one which

came nearest giving the desired results, but this form of treatment has many undesirable features which investigators are seeking to eliminate. In Portugal and Spain, we are told that syphilis is *exceptionally mild*, and Ferguson claims that the reason is that the population is *saturated* with it. Now, these two statements being true, reasoning from analogy, as in the case of small-pox, both of the diseases being systemic and caused by a specific poison, why not inoculate with the virus in a reduced form? At least, it would modify the disease; for the rational conclusion from the way in which it has acted in Spain and Portugal is, that, as it spreads and becomes reduced in virulence by being transmitted from parent to child, and being again communicated to healthy individuals, continually losing its power for harm by coming in contact with new blood, in time it will become inocuous. We believe this process can be hastened by artificial means, and a serum or some like product secured which will act more rapidly and with greater certainty than the present treatment mercurial. We give this as a suggestion, for there is no more prolific field for the earnest and intelligent student who seeks to benefit humanity.

Leprosy.—Leprosy is another of the great scourges of mankind, of which, as yet, little or nothing is known, except as it manifests itself in the terrible suffering it causes. It, like its twin brother, syphilis, can claim for itself the most erratic methods of manifestation. And as to age, it stands on equal grounds, for it prevailed in Egypt at least three thousand years before Christ.

It was known in India and China many centuries before the Christian era. The Greek and Roman physicians were acquainted with its manifestations, and throughout the middle ages it prevailed extensively in Europe, but during the sixteenth century it gradually declined. As to its geographical distribution, it appears that it is known from pole to pole.

Among the laity it is generally supposed to prevail in the tropical regions, but we find that, at the present time, it exists in Norway and Sweden and parts of Russia, with imported cases in England.

In the United States there are three leprous foci, Louisiana heading the list with from three hundred to five hundred lepers; Minnesota is next with about one hundred and seventy. California contributes (May 1st, 1898) sixteen cases of this loathesome disease. Most, if not all the cases in the United States are imported, with the exception of those in Louisiana; and since we have acquired the Hawaiian Islands we have increased our leprous population at least one thousand four hundred, with perhaps twenty-five per cent of the native population infected. These islands have been a continual menace to this country from this cause, and are more so now that there is greater intercourse since their annexation.

The people of those islands, especially the natives, are very averse to the laws of segregation, which are to a greater or less extent a failure, because of their non-enforcement. There is another feature connected with the leprous colonies of these islands which is objectionable, and that is the marriage of lepers. In the leprous colony on the Island of Molokai there are forty children of leprous parents, none of them showing any signs of the disease, and there is where the danger exists, for it is a well-known fact that leprosy will lie dormant for years, as the following case will illustrate:

A half-caste Hawaiian woman married three foreigners in succession, each husband in turn being stricken with leprosy. She was examined after the death of each husband and pronounced sound and well, no symptoms being present, and she was allowed to go free. She was suddenly taken with a most malignant attack and died.

So it is liable to act in the cases of these children, even after they have lived free from this disease for years, and it may at any moment develop, but not without first having exposed an entire community. As we stated, the peculiar and irregular manifestations of this disease make the etiology of it very difficult, if not impossible, to determine.

Many theories have been advanced to account for the presence of leprosy in so many different localities, and under such varying conditions of climate and mode of life. Habitual consumption of im proper food, such as salt fish, has beer suggested, but to offset this the disease i found endemic in localities where fish i never eaten. Heredity has been looke upon as an important element in the per petuation of the disease, and many case are recorded where the disease has de veloped in the same family for genera tions. The symptoms in these case rarely, if ever, appear at birth, but gen erally about the fifteenth or twentiet year. And again, many cases are know where children have been born of leprou parents and remain free from the disease all their lives. It is quite probable tha in the case of a leprous mother there i an actual transmission of the bacilla o the products from the blood of the mothe to that of the fetus. We know this is th case in small-pox, anthrax, relapsing an typhoid fever.

We know that leprosy can be and i spread by personal contact. As evidenc of the truth of this statement, witness th rapidity with which it spreads when un restricted, as in the case of the island o Trinidad. In 1805 there were three lepers in 1878 these had increased to eigh hundred and sixty.

As to the preventive treatment, like th etiology, there is a vast fund of informa tion to be acquired before anything satis factory in that line can be done. Many remedies have been tried, and, in some cases, a cure has apparently been effected but in most instances it has proven only a case of arrested progress of the dis ease.

So far, the only preventive measure i that of segregation or colonization, which we think should be carried out strictly even to individual isolation of the patient

Only in this way has the disease ever been suppressed, and it has been demon strated that in this way it *can be* eradi cated from a community or country. Cen turies have passed since the fearful wail of suffering filled the ear and wrung the heart of the Man of Sorrows, and as He turns and speaks the sympathetic and life-giving words, "Be thou clean," we are brought face to face with the first au thenticated case in which a cure was effected; and from that date to the pres

an has had that power, either
mortal, to stay the progress of
disease. Although scientific re-
as been awakened, and a com-
e study is being made of it, as
positive knowledge has been

ow physic to the winds,
none of it.
—SHAKESPEARE.

s of the Second Year of Child-

performing the professional
ich are placed upon every phy-
know of none that I approach
eater sense of responsibility, or
rehension of the final results,
treatment of those diseases in-
the second summer of child-
d particularly is this true of
children. If a mother is so un-
as to be from any cause in-
d from nursing her child, the
is confronted with the numer-
ers which are a menace to the
dle of helplesness.

rtunate, indeed, are the mother
sician, if they, by the most
fforts, find a substitute for the
ourishment of which the child
d, without some serious damage
t done to the digestive mechan-
a consequent entailment of a
od of suffering being brought
a result. It is estimated that
er cent of the deaths from all
children under two years of
due to some abdominal disease
om defective or faulty nutrition.
redisposing causes of these dis-
haps the ones that most often
o the list are injudicious food
ng. More especially is this true
nmer months, for it is then the
is most frequently called to
for these troubles, and as a
nd intelligent physician he is
to face the question of
shall be given the patient, and
n. We, of course, have children
ent classes and environments,
h syphilitic or tubercular dia-
me suffering from improper food
children in the cities' crowded
houses suffering from excessive
the lack of fresh air.

It becomes the duty of the physician, conscious as he is of the many dangers which beset these small voyagers on life's stormy sea, to guide their frail barks to the haven of health and maturity.

In the study of the etiology of diseases which affect the alimentary tract of children during the first two years of life, numerous causes are to be considered. In the first place, we have the human organism in its most susceptible period, that of growth and development, when it is most liable to be affected by any slight cause of irritation or inflammation. The vital powers, too, are then more liable to show the effects of any poison germinated in the intestinal tract from indigestion or malassimilation.

Deranged dentition, no doubt, has its share in the aggregation of such intestinal troubles as may be present at the time, and may even be the indirect cause of such troubles; but the following conditions, in my opinion, should be charged as principals, while dentition can only be held as an accessory in the indictment. Considering them in their order of importance as to the production of these troubles, I would name them as follows:

1st. Improper food and feeding.
2d. Impure air and water.
3d. Excessive heat or cold, that is, sudden changes.
4th. Dentition.

Improper Feeding.—Improper feeding is, in my opinion, the greatest factor in the production of these ills. Mothers who have correct ideas of feeding children are almost an "unknown quantity." Many remind me of our grandmothers who when they wanted to provide a particularly fat Christmas turkey, literally stuffed the poor bird after it could eat no more. They thought, as some mothers seem to think, the more food, the more fat, and not being up-to-date in their knowledge of the physiological action of the turkey's stomach, they are not condemned, for they acted according to their light.

But not so with the mother who, every time the child cries, proceeds to stuff the poor little innocent, who can only defend itself by its cries, and unless mother nature, more kind and intelligent, comes to the rescue and emesis is produced, and

the surplus over and above that which can be assimilated is thrown off, the child pays the heavy penalty in disease.

When the child is teething, especially in warm weather, and it becomes fretful and cries, instead of feeding it every time, take a nice clean cloth and moisten it in nice cool water, and let it moisten and cool its fevered gums by nursing it. In this way, overloading the stomach is prevented.

The overloaded stomach of the child is the source of auto-infection, from the decomposition of the excess of food over and above that which is digested and assimilated.

On the other hand, many children suffer from insufficient food, either in quantity or quality, and in either case we find a similar condition to that of emaciation and general weakening of the entire system.

With the vitality at the minimum, the resisting powers are almost *nil*, and, with perverted cell formation, together with the deteriorating process which is in progress, we have almost a hopeless struggle before us if we try to save the little patient.

Impure Air and Water.—Impure air and water with unsanitary environments exert a great influence in the production of gastro-intestinal troubles, and should be carefully looked after in the treatment of such cases.

The most convenient way to get pure water for the patient is to boil and cool the water and place it in sterilized vessels. This is too often neglected by the physician, and is as important as any part of the medical treatment.

To a child suffering from troubles of this nature, water is as essential as air to its existence. The day has passed when water is refused to the parched and fevered patient, under the mistaken idea that it is dangerous.

So a liberal use of water is the best treatment. It flushes out the entire system, and supplies the moisture absolutely necessary to life. Injected into the bowel with some mild antiseptic, it cleanses it of all disease-producing matter which may have been retained and, at the same time, reduces the fevered condition which is constantly draining the system of its fluids, and relieves the straining that is caused by the irritation. It is soothing to the inflamed surfaces and promotes tonicity and repair of the nervous system.

Become almost a water fiend in these troubles, and see that the little patient has at least one tepid bath every day, and more if very feverish. It acts almost as a tonic, and promotes healthy activity of the skin, and all the emunctories of the body, which is very essential in the elimination of the impurities retained.

In order to be more perfectly understood, in regard to the feeding and care of food and the utensils in which the food is contained, I will enter more into the details of the subject, for, in a paper of this kind, while it may seem unnecessary, my experience has been that there is either woeful ignorance or negligence among physicians and laity on this subject.

Babies that are hand-fed should be carefully watched to determine if the food is agreeing with them.

They should be weighed at least once a week. There should be a continual increase in weight and strength if the child is doing well, but if the baby insists on taking large quantities of food and cries to be fed frequently, when there is great distension of the abdomen and little or no increase in weight, something is wrong with the food and it should be corrected at once. Next to the milk of a healthy woman, that of a healthy cow is the best suited for the delicate digestive apparatus of the child. It may be diluted, and a small per cent of sugar of milk added, as the judgment of the physician dictates. If, after careful trial, no milk can be found that will agree, oatmeal gruel, or something of that nature, may be found beneficial in some cases.

(To be continued.)

[Written for the MEDICAL BRIEF.]

The Drink Habit.

BY C. W. HIDDEN, M. D.,
Newburyport, Mass.

It is five years since I announced, through the columns of the BRIEF, my discovery of a remedy for the cure of the drink habit. During this period I have

pportunity to study inebriety at
ge, having treated over four hun-
and women with only seven

interest the readers of the BRIEF
that one family, in return for
beloved member from a drunk-
ve, have promised me, as a gift,
ough to buy a piece of property,
d as a sanatorium for the treat-
he drink habit. When this has
n into my hands, it is my inten-
y all other cares aside, and de-
remainder of my life to the
pliftment of fallen humanity.
y men learn to drink, how the
bit obtains control, the right
of this curse of our modern life
hings ought to be better under-
physicians.
e led to take the first glass in
ays: Sipping wine at receptions,
gatherings, at public functions,
r in response to an invitation
friend or chance acquaintance.
ence of liquor is remarkably de-
The first sensation is one of ex-
, of exaltation. There is no pre-
of danger. On the contrary, the
orgets his troubles, rises superior
le things of life, feels like a mil-
It is not strange that he re-
s experience again and again.
et surely, the drink appetite is
nifest. The man drifts from the
horage of family and friends,
er and lower in the social scale,
a confirmed inebriate, drunkard,

e a drinking man is more diffi-
most people imagine. Blinded
the poor fellow has no real con-
f the danger that threatens him.
n sober, it is hard work to make
ssion on his mind. Men hesitate
themselves weaklings, to confess
bility to control the desire for
ence the ever-ready declaration
can drink or let it alone. But
fact is that few men are able to
r aside permanently without
help. To cure inebriates, we
ume the initiative, must watch
sely during the first weeks of
. But once the medicine begins
ffect, the period of watchfulness
is over. The man clings to the medicine as a savior, the drink appetite is overcome, he is saved to family, to country, to God.

Only those who have to deal with this evil realize the power of the drink appetite. The drink crave becomes so all-powerful that not one man in a thousand is able to let liquor alone on his own account. It is one thing to applaud a drunkard when he pledges himself to reform, quite another for him to fulfill his pledge.

While the excitement is on he does very well, but the devil in the glass knows his man, recognizes his weakness, bides his time. When the reaction comes, when the throat is dry and husky, when arteries and veins seem on fire, when the brain is muddled, the nerves fly to pieces, and every fiber of being cries aloud for "drink, drink, drink," then resolutions count for naught.

This picture is not overdrawn; it is sadly true to the life. Then why not look this matter squarely in the face, and recognize the wisdom of medical treatment for the drink habit? The drinking man is a victim of alcoholism, and alcoholism has been recognized as a disease for hundreds of years. Unless the man is cared for, the desire conquered, the system made free from alcoholic taint, he is certain to go straight to ruin.

The remedy that I employ is a combination of cinchona rubra, strychnia nitras, capsicum annuum, and avena sativa.

This destroys the craving for liquor, and starts the patient on the road to health, strength and moral control. Only the once intemperate can appreciate what it means to lose that awful, consuming thirst for strong drink. One of my recent patients expresses it in this odd, yet comprehensive way:

"On my first visit to Boston I found, to my surprise, that I had no desire to visit a bar room. I remembered, of course, how many times I had filled up in such places, and how tempting they had always been to me before, but this time the medicine was too much for the bar. I felt much as an epicure would feel after a feast to be offered a piece of mince pie —no room for it, no desire for it. Your medicine so filled and satisfied me that I did not care for drink, and, what is more,

the sight of so much drinking was repugnant to me."

My discovery removes the appetite for liquor, restores the system to normal or healthy tone. No man in health craves strong drink. I bend every energy, utilize every means at command, to restore the drink patient to health, to make him sound in body, brain and mind. When this has been accomplished, the reign of old king alcohol is at an end.

The primary sensation on taking the medicine is one of delicious warmth, which extends to all parts of the body. Patients frequently say, "The first dose made me thrill and glow from the crown of my head to the tips of my toes." This is not to be wondered at when we recall the condition of the patient prior to beginning treatment: stomach irritable, nerves out of tune, brain in a jangle, vital powers depressed, a weak, trembling, physical wreck. It is well worth while to reverse all this: To suffuse the body with warmth and power, to find the nerves steadying down, the brain clearing, the stomach able to retain food, an awakening sense of manhood and of growing control over a debased appetite.

It is like a glimpse of a new world. Things take on a natural look. Ambition is fired, resolution quickened. The man determines to work back to a recognized place in his own class. He looks upon the saloon as his enemy, regards old cronies as a source of possible danger, strikes out on new lines, lines that point the way to respectability, to honorable position in society, to the old, safe path to heaven that father and mother trod.

One of the very noticeable effects is the restoration of the appetite for food. Liquor, as a rule, upsets the stomach first of all. After awhile, appetite goes back on the drinking man, and this is usually the beginning of the end. To cure the inebriate it is of the utmost importance to heal the stomach, to restore the function of digestion, and to insure the assimilation of food. This is my first step, and as an aid the remedy works like a charm.

The patient begins to "eat like a horse." He is hungry all the time, and, best of all, food agrees with him, nourishes and invigorates the system. This, coupled with suitable bathing and judicious exercise, soon transforms him into an individual thrilling with health and conscious might.

The next surprise, and a blessed one at that, is the sweet, refreshing sleep that follows. Instead of dreams filled with drink, wretchedness and terror, he sleeps as peacefully as a child, and when he dreams again it is a dream filled to the brim with happiness, a dream that creates a determination to blot out the past, to achieve success, to be all that wife, children and friends have lived and hoped for.

[Written for the MEDICAL BRIEF.]

Pernicious Uses of Wood Alcohol.

BY LEON L. WATTERS, A. M., PH. D.,
New York City.

The wide publicity which is being given to the dangers of wood alcohol is truly gratifying to those of the profession who have early had cause to learn by sad experiences the toxic nature of this article; and inasmuch as it is well known to chemists that wood alcohol has been, and is to-day, being employed as an ingredient of various substances of common consumption, in a manner that is entirely unjustified in the face of indisputable evidence of its harmfulness, it would seem desirable to acquaint physicians with the sources from which trouble might be expected.

At the outset, let me say that in view of the overwhelming testimony of careful experimenters, there no longer exists the slightest reason for doubting the toxicity of wood alcohol, however pure it may be. When, a number of years ago, as a result of the increased activity in the industries involving the dry distillation of wood, this product was brought forward as a substitute for grain alcohol, it was hailed with delight, for by substituting the one for the other a saving often aggregating as much as three-fourths of the cost of the finished product was effected. The change was easily made, for wood alcohol greatly resembles grain alcohol in outward physical properties, and has an equal, and, in some cases, a superior solvent property.

Its first (and legitimate) use was as a solvent for various gums and resins in

varnishes. Gradually it sup-
in spirits in most industrial
Then followed the unfor-
overy by ignorant or unscru-
ons that it could be easily sub-
grain alcohol in preparations
r human consumption; and
not slow to adopt the idea
estigation as to probable con-
nd with a disregard for what
w, which was little short of
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rn the tide of this ill-advised
i now that the true facts are
s not improbable that many
e past might be traced to its

r of years ago, in one of the
ls on Blackwell's Island, in
two convalescent painters
work varnishing woodenwork
ospital, as was the custom in
They had both been hard
d, being deprived of whisky
going treatment, were unable
heir craving. On the evening
rticular day, both men were
unconscious, and remained so
ied.

the writer's first knowledge
y effects of methylated spirits.
was known in regard to the
ature of wood alcohol at the
ew deaths ascribed to it were
However, the above cases gave
nvestigation, in which it was
the two painters had poured
the varnish to precipitate the
had then drank the spirit
p. The solvent was found to
r wood-alcohol.

e later, an interne in the al-
d at Bellevue had observed
ions of patients who had ap-
bibed whisky among the low
he East side were very differ-
he better class of inebriates.
ed to be a common affection of
erve. The writer was asked
the matter, and preparations
to analyze samples of cheap
uch as are dispensed in the
he city, when four sudden
e reported among people liv-
a small area in that very dis-
tigation showed that they had all partaken freely of whisky the night before, and chemical analysis showed samples of whisky bought from saloons in the neighborhood to contain alarming proportions of wood alcohol. This last occurrence more than any other started a crusade against the employment of wood alcohol in products intended for internal use, which it is hoped will not be allowed to abate until manufacturers and others shall be thoroughly impressed with the dangers that attend its employment.

Further investigation by chemists in various parts of the country has developed the startling fact that the pernicious employment of this substance is greater than one was led to expect, and to what extent it may be employed by persons unfamiliar with its properties is a conjecture fraught with grave dangers. Only lately it has been shown to be the basis of some toilet waters, and of numerous other articles of a similar nature. Analysis has shown that much of the witch hazel sold at a low price contains wood alcohol, and inasmuch as this preparation is often given internally, this practice should be stopped. Still more startling was the discovery that wood alcohol was being used as the basis of many of the cheaper flavoring extracts, particularly in essence of Jamaica ginger. That it has supplanted grain alcohol in most liniments is well-known. Chemists who have investigated its occurrence in whisky are of the opinion that the cases brought to light in New York were probably sporadic, and there seems little likelihood that the practice of thus adulterating whisky is general.

Investigations have been carried far enough to prove that the unwarranted use of wood alcohol is far more widespread than we had cause to suspect, and it behooves physicians to let pass no occasion to impress upon the public the dangers which accompany its use. The claims of interested parties that pure wood alcohol is not poisonous is not worthy of a moment's consideration. It has been repeatedly shown by the most careful experiments that chemically pure methyl alcohol, made synthetically in the laboratory, exerts even a greater toxic effect than the

wood alcohol of commerce. Hence, it is not the impurities, such as acetone, that lead to trouble; it is the inherent property of the methyl alcohol itself.

142 West Ninety-Fourth Street.

[Written for the MEDICAL BRIEF.]

Therapeutic Suggestion: What Is It?

BY HERBERT A. PARKYN, M. D., C. M.,
Chicago, Ill.

The term suggestion is being used with a broader and broader meaning every day. Briefly, a suggestion may be said to be any impression which is consciously or unconsciously received through any of the senses.

A few moments' reflection on the above definition reveals the fact that one's whole education is created by suggestion, and that the effect of every suggestion is influenced entirely by those which have preceded it.

A therapeutic suggestion is a suggestion of such a nature, that when conveyed to an individual through one of his senses, it arouses in his mind a chain of thought which will assist him to overcome unhealthy mental or physical conditions.

To the student of suggestion, the reason for the success or failure of any mode of treatment in a given case becomes very plain if he understands the individuality and suggestibility of the sufferer.

The force which enables a man to walk a mile is stored within himself, and the time expended in traveling that mile will depend on his mental condition. All the thrashing, abuse, drink and medicine in the world will not take him one step on his journey until his mind is in the right direction. Even then, the rate at which he would cover the distance would depend upon the nature of the suggestion which made him decide to move. For instance, if his mission should be an unpleasant one and the day hot, he would likely go slowly, the journey would seem long and he would tire. On the other hand, if his mission were pleasant an he had bright companionship, he woul likely walk at a moderate speed, withou consciousness of effort or time. If h should receive notice that a mile awa some one very dear to him was injure and likely to die before he reached th spot, it is altogether likely that he woul run there at top speed. The rate, there fore, at which a man spends his strengt and the manner in which he expends i is dependent upon suggestion.

The healing of all the physical ai ments to which man is heir, is accom plished through the blood, which heal every wound, and the rapidity with whic healing takes place depends upon th amount and quality of the blood suppl to the affected part.

An ulcer may remain unhealed fo years if the circulation in its vicinity i poor, or if the patient is suffering fro general debility. Such troubles as con stipation, dyspepsia, dysmenorrhea, head aches, kidney diseases, catarrh, conges tions of all sorts, neuralgias, rheumatism etc., *ad nauseum*, are produced by trouble of the circulation. The blood supply t an organ or part may be insufficient, im pure or obstructed, and these troubles o the circulation are brought about by th failure of some organ to perform it functions.

Blood is the healing medium and i within man. The organ which propel the blood, the heart, is within man. Th force which keeps the heart in action i generated within man and is dependen upon the quantity and quality of hi blood. The quantity and quality of th blood depend upon the air taken into th lungs and the food digested and assimi lated by the stomach and bowels. Th quantity and quality of the food supplie to the stomach depend upon the selectio by the individual and his selection shoul be made from knowledge. Knowledge i a product of suggestion.

Anything which will interfere with man's necessary supply of food, or wit his digestion and assimilation of food will prevent the production of vital forc and interfere with his health, or if h be sick, will prevent or retard his re covery.

n is the dominant organ of the
ery muscle, nerve and organ is
fluenced by it and the mind.
ne present time, our physicians
ed the anatomy and physiology
ain, but they have sadly neg-
study of its functions. The
greatest function of the brain
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s when necessary. The brain,
the guardian and at the same
servant of the mind; for al-
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the mind the function of every
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ases are produced and so many
I am now speaking, not of
hich are imaginary, or troubles,
oms of which are confined to
enomena, but I refer to diseases
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en we have heard physicians
hen told of the effects of sug-
on a certain complaint, "Oh,
y well for the imaginary com-
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g else of that sort would have
he same results; but, of what
suggestion be in a case of ane-
stance?"

"Yes, my friend; mental
will cure the imaginary com-
a patient (and there are thou-
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tions he receives change his line
rable thought. Doctor, if the
solely in the mind, why do you
a patient for months through
ch? Why do you treat such a
r months with medicines be-
hand him over to the men-
s to have them demonstrate
at the trouble you treated for
as an imaginary one? A study
ogy and suggestion will enable
you, when a patient first consults you, to ascertain the part imagination plays in his complaint. Imaginary or not, however, it is real to him, and to have it removed he pays you money, which, by the way, is not imaginary (even the Christian Scientist will reluctantly concede this point). You know how to move the bowels of your patient, why should you not know how to move or influence his thoughts?"

Doctor: "That is very true, but how is suggestion, alone, going to cure the anemic patient? Will suggestion put iron into a patient's blood, or make new blood corpuscles?"

Answer: "My dear friend, now take yourself for example. You are unquestionably in perfect health; evidently you have plenty of iron and red corpuscles in your blood."

Doctor: "Certainly."

Answer: "Well, I suppose that you are aware of the fact that you are constantly replenishing these necessary constituents of your own circulation, and that you obtain the necessary supply from the ordinary food you eat and digest? Since the blood depends upon the stomach and bowels, do you not think the quickest and best method to adopt to cure your anemic patient would be one which would encourage digestion and assimilation of good food?"

Doctor: "But, supposing the stomach will not retain food long enough to digest it, what then?"

Answer: "Well, then, you have a splendid opportunity to use suggestion, for it will work like magic upon that weak stomach, and the food will be retained long enough to be digested. The appetite, also, may be stimulated, and the amount of food gradually increased, when, if the patient's mind is not interfering with his digestion, or his appetite, he will pick up rapidly in vital force, and with the improvement in the circulation, all the symptoms, which generally accompany anemia, as well as the trouble itself, will disappear. I mean such symptoms as dysmenorrhea, for which, as a rule, you have seldom been able to do anything satisfactory; constipation, for which you generally give purgatives (thereby de-

pleting the patient still more); headaches, which are neuralgic, and due to the lack of blood supply to the head, for which you generally give sedative or anodynes (thereby lessening the already lowered vitality of the patient). For weak eyes, which are simply another evidence of a generally weakened condition, you send your patient to an oculist, who makes another 'double window martyr.'"

Doctor: "Granted that you have built up such a patient, what guarantee will she have that her old trouble will not return? You have cured her by faith, and faith is a poor thing to depend on for health."

Answer: "Yes, faith is very poor support, I admit, and the weak point in the armor of every system of healing, which does not embrace a thorough knowledge of psychology, and the effects of suggestion, lies in the fact that the permanency of the cures is dependent upon faith. Let us take your anemic patient with the weak stomach, for example. Such a patient may be cured by any method of treatment which manages to quiet the stomach sufficiently to retain food. This quieting condition would result from any method of treatment which made a strong enough impression upon the mind to bring about the same mental condition that I mentioned could be brought about, in every instance, by simple suggestion when intelligently used. It makes no difference who settles the stomach, whether an allopath or homeopath with medicines; an osteopath, who finds a pressure on the pneumogastric nerve to be relieved; or a magnetist, who finds the vital forces off their equilibrium; or the Christian scientist, with his one mind theory, etc.; the fact still remains that the patient's expectant attention would be aroused, and that in every instance he would be verbally assured that the treatment or medicines would quiet the stomach. In fact, the force which all these systems of treatment would endeavor to bring into service, in such a case, would be suggestion, and the method which would bring it most forcibly to the mind of the patient would be the one to relieve him.

(To be continued.)

[Written for the MEDICAL BRIEF.]

In Old Roseau—An Idyl of the Caribbean.

BY WILLIAM S. BIRGE, M. D.,
Provincetown, Mass.

(Continued from page 338.)

Privateering and smuggling had failed so now he commenced honest trade. He went to St. Domingo with a cargo o corn, sold it well, and lived on the island But his star grew fainter and fainter He quarrelled with two black general officers, challenged them, and shot them both severely. Christopher sent for him, and told him that if the men recovered i were well, but if either of them died he would hang him on the tamarind tree before his own door.

Audain thought the men would die, and escaped from the tamarind tree by nigh in an open boat. He now settled in St Eustatius, put on his black coat again and recommenced life a clergyman. St Eustatius was a free port, yet the division of labor had made surprisingly slow advance in it. There were many religions but few priests in the island when Audain made his appearance there. He had become liberal-minded by misfortune and was always actuated by a faith o such immense catholicity that it comprehended within its creed every radiation o opinion from the center of Christianity as the felloe embraces the spokes of wheel.

Audain offered to administer to all th sects respectively, which offer the free traders thankfully accepted. In the morning he celebrated mass in French; i the forenoon read the liturgy of th Church of England; in the afternoo sprackened the Dutch service, and a nightfall chanted to the Methodists.

Audain seemed to be again gainin wealth and fame. He was a married man but his wife resided in England. A Dutch widow—rich, pious and large—cas a widow's eye on Audain. The rigor o Creole viduity softened under the after noon spraeckenings of Audain as Dutch butter melts under the kisses of Titian She told Audain that if Heaven had mad her such a man she would have marrie twice. The hint was broad as herself

n liked it the better for its
, and married her on the spot,
e service himself.
fought thirteen duels, and was
er. He lived to a ripe old age,
reformed his manners. He
utch wife, and said his prayers
to disturb his neighbors. His
ife sent him a Christmas box
He was a man of infinite tal-
ad seen the world. If he had
life of himself, it would have
nost entertaining book of the
ke many others whose life has
of romance, he sank into obli-
he did not seem to deserve.

o the market place early in the
particularly on Saturday, will
ing, and at the same time show
e Dominicans live upon. A bet-
it would be hard to find, and
one impossible; excellent beef,
mutton and fowl can be pur-
from eight to ten cents a
ish of various kinds and deli-
r, from four to seven cents. All
f tropical fruit in abundance,
sly low prices. Several times
the market we noticed some
nimals, resembling lizards in
, being about two feet in
l covered all over with brown
ey were vicious-looking things,
d their disposition by snapping
ne who passed near them. We
that they were iguanas, and
dered a great delicacy. The
ite, and is said to resemble the
flavor, but is more delicate.
ket is almost wholly controlled
and one will find them of all
m the blackest of the black to
ve tint. They go bare-footed,
only clothing consists of a
single undergarment, and a
danna handkerchief tied around
n a manner peculiar to them-
eir dress is always made with
in, which is generally looped
eld in place by a cord tied
e loins. They present a very
e appearance, and are certainly
each calling out her wares at
f her voice, and naming the
e speaking English, and others
patois, which to a stranger is
perfectly unintelligible, even though he understands the French language. A few of the market women occupy stands covered over with rough boards, but the large majority are content to squat on the rough stone pavement, their baskets by their side. A little apart from the market proper, in a group by themselves, are the charcoal venders, who always have a good trade, for charcoal is the only fuel used in these islands.

The women of Dominica are not so pretty as their sisters in the neighboring island of Martinique. They are generally larger in figure, and coarser in feature, and have not the dainty feet and graceful gait of the French belles. They also lack that voluptuous languor which is so characteristic of a Martinique woman. The complexion is generally much darker, and they resemble more the native African type.

The boarding houses of Roseau are excellent, the table such as would suit the most fastidious.

To one who is fond of quiet, likes to live well, enjoys out-of-door life, and loves to commune with Nature, we would say, go to Dominica. There in that tropical isle of the sea, all is quietness, all is rest. Far from all the tumults and cares of city life, he can truly say that he stands in the midst of a paradise, and has veritably left the world behind him.

[Written for the MEDICAL BRIEF.]

Liquor Ferri Persulphatis.

BY EPHRAIM CUTTER, M. D.,
New York City.

On page 912, MEDICAL BRIEF, October, 1904, Dr. F. A. Wilmans tells how a case of foulest dry gangrene was healed in eight days by the liq. ferri persulph. U. S. P., and he asks for like experiences. Much pleased with his report and deeming it one of the highest privileges of the MEDICAL BRIEF to collect, as in a contribution box, facts asked for from over forty thousand physicians, let me answer that some years ago I was called to a lady in the last stages of a disease that was not made out previously, and that I was put to my mettle to solve the problem. After going over the microscopic and macro-

scopic and rational physical signs of disease the diagnosis was cancer of the pancreas. Never having seen a case of it the diagnosis seemed doubtful until it was confirmed by an autopsy. Perhaps the exceeding interest of this case may explain the absent-mindedness to a slight punctural wound on my left forefinger at said autopsy. But it soon attracted attention by pain, swelling, glowing redness extending over the whole finger nearly and not yielding to the applications of the ethereal tincture of iodoform, a remedy I brought from Europe in 1862, and which I had found valuable for hand punctures and abrasions. But the finger grew worse, and the idea came to me to try the liquor ferri persulphatis put on clear. It was done. Almost at once the pain was relieved, the swelling went down, the color improved; in brief, the finger got well in a short time and does good service now. I suppose it was a blood poisoning from a dissection wound and that I ought to be thankful for escaping with my life.

The styptic use of this preparation is only one of its valuable applications.

In 1871 I visited California and calling on my medical classmate, G. L. Simmons, M. D., of Sacramento, Cal., an honor to his profession, with whom I did some studying in our pupilage. He called my attention to his use (original with him) of the liq. ferri persulphatis, U. S. P., as a topical application to the throat and nares. About one drachm to one ounce glycerine he applied by a sponge, probing not only to the pharynx, but through the nostrils to the superior pharyngeal space. Also a gargle one drachm to sixteen ounces of water. I profited much from this information and found it very useful as he directed, and more so, as by it an adenoid growth on the cervical vertebra of the superior pharynx was entirely removed, and with it the inability to do sums in arithmetic at the age of twenty-three years. Since then the patient has held his own in his commercial business with a clear head.

Note.—The action here was not styptic, but tonically astringent, emptying the dilated capillaries and stimulating them to normal action.

To make the subject more complete I have asked Dr. Simmons to favor the MEDICAL BRIEF with his experience as to the persulphate of iron.

As to the rationale, it has always seemed to me that the excess of sulphuric acid had something to do with its value. Taking my cue from the dentists, I once cured a case of necrosis of the alveolar process by the aromatic sulphuric acid U. S. P. It acted beautifully on the live tissues and the dead. Gave relief and made possible an easy removal of the necrosis in a comparatively short time. In ingrowing toenail I have found this preparation reliable where the nail convexity was scraped to thinness.

I am quite aware that I am writing on a back-number medicine. It is not in the dose table of P. Blakiston & Sons 1904 Physicians' Visiting List. Nevertheless, I am grateful to Drs. Wilmans and Callender for their report, and can not but speak well of the bridge that has carried me over a railroad of destruction by sepsis.

[Written for the MEDICAL BRIEF.]

Medical Reorganization.

BY W. A. FANKBONER, M. D.,
Marion, Ind.

Medical organization has for its basis sociability and exchange of ideas. This is commendable, but conditions of membership have been exclusive. There was a time when "allopathic," "homeopathic," etc., meant more than they do now, and many "pathies" have appeared since these were in their virginity. All of these embody some elements of good, and it is not for any single body of medical men to say which shall come to St. Peter and which shall go the other way.

The present tendency is to recognize the good as it develops into condition of stability, and to give encouragement to conscientious and capable men, even though their armamentarium may be different from "ours." The broad-minded physician aims at the cure of the patient always and is willing to use whatever will best secure that result, be it in his own category of helps or otherwise.

This reorganization will in time tend to unify medical endeavor, and "pathies" will in that degree disappear, much to the benefit of both physician and patient.

tten for the MEDICAL BRIEF.]

Undulatory Theory in Therapeutics.

UEL S. WALLIAN, A. M., M. D.,
New York.

er revelations of science have essary a sweeping revision of otions of the nature of matter, life principle.

ly stated, life and matter are itions. The first we call im- et both are modalities or mani- of vibratory impulse.

color depends on the velocity of lations, each particular form of s its individual and distinctive rate and rhythm. This rate determines the form or con- which matter becomes visible, solid, liquid, or aeriform, anite or gold, gas, or gossamer. handful of dust, itself a result- atory motion, an electric thrill: ell. A second thrill eventuates pagation, proliferation by spon- sion. The single cell becomes sixty-four, a million, a thou- on. But for antagonistic and ing influences, a single cell n people the earth, and over- solar system.

geometric progression, evolu- ion.

l advances and changes its and destiny with each change y velocity. The ameba is dis- the mollusk, the mollusk by a a mammal, a monkey—a man. ge and gradation is not a trans- as mollusk into mammal, or to man, but an evidence of a n vibratory velocity.

n rate begets a *vermis*, another rate produces a *viper*, a *ver- vestryman*.

iates the necessity for a myth- ng link."

rogagated, promoted, and main- the same influence, vibration. nal organism is a nucleus or n representing the visible or d results of concentrated and vibratory impulse. We live ery molecule—now called cor- puscle—of matter entering into the composition of our bodies maintains its individual existence, through unapparent but infinitely rapid and incessant vibrations.

A study of vibration, mechanically imitated, with a view to its therapeutic applicability and capabilities, is, therefore, quite legitimate, and decidedly promising. It is not new, but these recent revelations in science have given it fresh interest, and a new impulse, since they establish the fact that vibration and creative energy are practically synonymous terms. The universe itself is but a realm of associated and vibrant nuclei.

When organized strictures or individual organisms encounter a force counter to their own molecular rhythm, and powerful enough to temporarily interrupt their incessant motion, we call the interruption disease. When this antagonistic force persists and prevails, the stoppage is called death.

The sway of this force is all-pervading and universal. Remedial agencies of whatever kind can not be disassociated from it, and the more nearly they are arranged *en rapport* with its simple laws the more prompt and satisfactory the results. Recuperative effort is essentially an effort to restore undulatory or vibratory equilibrium. That mechanical vibration can be made a valuable—perhaps invaluable and indispensable—aid to other methods, in combating diseased conditions, is not a far-fetched inference. It is not a question of plausibility, but of availability. To what extent artificial vibratory impulse and nerve stimulation can be made to supplement or even substitute vital, organic or normal vibrations remains to be demonstrated. Results already obtained, some of them by means of the crudest and most primitive appliances, warrant the prediction that mechanical or artificial vibration will prove the most valuable acquisition to the field of general medicine made during the past quarter of a century. As with all novel ideas much bungling is being done on the part of superficial investigators, many of them failing to distinguish between mechanical massage and mechanical vibration. The difference is radical and irreconcilable. Mechanical massage

may be made available for certain results, not necessarily all superficial, but it should never be confounded with mechanical vibration or vibratory impulse. Some careless writers on the subject continue to use the terms, as if synonymous—an inexcusable mistake. It is only too evident that those who speak of vibration as a form of massage have no conception of the nature and possibilities of the former.

Massage has been before the profession for some years, and has been developed into a very useful and respectable art. It has appropriated or coined several descriptive terms not used in any other connection, viz., *effleurage*, *pétrissage*, *tapotement*, etc. But while massage proper can be utilized to excite or induce vital vibrations, on the part of the subject, it is not in itself any form of vibration. To speak of the two in the same connection is to be guilty of a confusion of terms that should be carefully avoided.

Among other things, massage is made to take the place of proper and normal physical exercise. Muscles may be kneaded, pinched and squeezed into a more supple and responsive condition, the cutaneous circulation quickened or equalized, and the superficial lymphatics stimulated to greater activity. But the most expert masseur does not undertake to affect the deep-seated nerve trunks, the spinal ganglia, and only slightly and superficially the splanchnic and sympathetic systems of nerves, or the profounder glands and absorbents.

Mechanical vibration in its renascent form is but a few years old, is yet without a literature, and has before it a field to which massage can never aspire. Its distinguishing feature consists in its power to profoundly affect and control, stimulate or inhibit any organic function, gland or viscus, as well as the nerve and blood supply of any part of the organism, through its nerve control or trophic center.

Massage is applied at or near the seat of the pain or local disturbance, with a view to palliating or dispersing it. The vibrationist hunts out the nerve-control or trophic center radiating to the part, and either stimulates or inhibits it, according to the effect desired.

Massage has a definitely limited field, and has realized its limitations.

Mechanical vibration has before it an unlimited field, and is yet in its swaddling clothes.

But no superficial study or off-hand estimate of the subject is of any possible value, and those physicians who are willing to give it the painstaking investigation it requires in order to be understood, have much to learn that will genuinely astonish and encourage them, while it disabuses their minds of an almost inexcusable misconception.

It is to be hoped this brief prefatory effort will aid in eliminating the confusion in definitions, and in laying a foundation for some practical details.

509 Fifth Avenue.

[Written for the MEDICAL BRIEF.]

Medicinal Potency of Lemons.

BY ROBERT GRAY, M. D.,
Pichucalco, Chiapas, Mexico.

I have used strong, cold lemonade for forty years, in more than three thousand cases of typhoid fever, in Cuba, Central America and Mexico, and there is nothing else known to the profession so soothing to the consuming thirst of the parching internal fire of that dreadful scourge. Lemon juice is superlatively antiemetic, antiseptic and sudorific, a *germicide par excellence*. Lemon juice and chlorate of potash, in drinks and enemas, almost comprise my specific among the poor, unable to pay for scientific remedies. I usually open the battle with an emetic, fluid extract of ipecac and a flaxseed enema, containing enough ipecac to purge the bowels, followed by a round purge of podophyllin—the infallible expeller of intestinal parasites and cleaner of the nutritive tube—obviating cramps when the bowels are ready to move with a rousing enema, containing glycerine or castor oil. As a precaution I often give a few two-hour doses of aconite or veratrum viride, in early stages. I keep the threatened tract open with small doses of podophyllin, repeated every twenty-four hours, as long as necessary, and frequent flaxseed enemas, with chlorate of potash or lemon juice—this last once in twenty-four hours. I

a small dose of chlorate of
three hours, and give all the
ey may want. I apply abdom-
d poultices, faced with pow-
nor, and fifteen to thirty drops
n. When fever is intense in
put sulphate ether or other
nape of neck in a bladder,
no ice here, using a safe hyp-
rium.

n early fever usually drops
C., in twenty-four hours,
es normal a few hours
within two or three days,
ng 39° C. when it rises, and
sappears in two weeks or less,
tful convalescence. But when
ive to fifteen days—often the
use antipyretics or salicylic
e the fever, and when it will
d stay under 40° C. I antici-
tion, and give thirty to forty
al hydrate in flaxseed enema,
hour or more, forcibly when
which almost always lowers
and affords some hours' re-
ep, if perforation has not pre-
fatally developed. Chloral is
ler of ulcers, internal or ex-

lways abort typhoid fever, on
of first symptoms, when at-
veloped case, and disinfect my
their surroundings with chlor-
and carbolic acid.

nents of the lemon in disease
ersons are so saturated with
und acid that lemon juice
quicker than strychnine; but
s never fallen to my lot, and
d more than three thousand
lls and fever with strong
heavily spiked with lemon
nt of quinine, in time of rev-
want of money in patients'
it, during my long and try-
tropical practice.

abort the grippe and prevent
with strong lemonade, made
r cognac, hot as possible to
ed by carbonate of creosote,
g sweat the lemonade pro-

yellow fever with a round
or oil in the juice of a big
lemon. If this does not stay down black vomit is inevitable.

Nothing else equals cold lemonade to quench thirst in labor pains.

Lemon juice kills germs of Asiatic cholera more effectively and quicker than any other antiseptic, even when much diluted in enemas.

But you can not use lemon with any form of mercury. Calomel is responsible for the serious accidents attributed to the use of lemon juice, if there really have been such, which respectable doctors affirm. I never use calomel in this wet, hot country. Better not use lemonade nearer than an hour before substances incompatible with acids, nor nearer than three hours of pure milk food, which I regard as solid food, ever prone to curd in weak stomachs. Citric acid is a poor substitute for pure lemon juice.

When in a red-hot epidemic or inhaling miasmatic fumes in every breath, I eat an orange or squeeze a lemon into a cup of black coffee before breakfast, and have lived forty years without ache or pain or a dose of medicine, other than fifteen drops tincture of iodine or one two-hundredths permanganate of potash in half glass of water, after great exposure to contagion in the night.

[Written for the MEDICAL BRIEF.]

Some Observations on Pneumonia.

BY J. W. BRYANT, M. D.,
Shamrock, Mo.

The season is not too far advanced yet to have a few cases of pneumonia, though I have always found my cases when the snow was blowing into drifts. I see no reason for a high death-rate in this malady, except in the infant and aged. In the youth, young adult and middle age (if uncomplicated) pneumonia runs such a rapid course that convalescence may set in by the seventh day. If you are fortunate enough to be called early in the attack, and the patient is suffering from pain in the lung, shortness of breath, and high fever, do not hesitate (if the patient is vigorous) to open a vein, and extract from fourteen to sixteen ounces of blood. Then apply a blister over affected lung. If the sick room is close and illy

ventilated, lower the upper window sash to permit the entrance of fresh air. If a hot fire is burning in the stove, take out a part of the fuel, and let the fire die down till the stove is just a little warm. The pneumonia patient is not going to object to the cool air. Keep his arms under cover. Do not permit him to exhaust himself by talking. Do not allow him to drink iced water.

Treat the symptoms as they arise. Watch the action of the heart. Just when the fever breaks, there will be an alteration of the heart action.

I treated two cases of pneumonia the past winter (one a man fifty-two years with his fourth attack, the other a man eighty-one years old, with his first attack) that when the fever broke, the pulse dropped down to sixty beats per minute.

The first case (fifty-two years old) suffered greatly with secondary pleurisy. Morphine soothed his pain and stimulated his heart. A medicated mud plaster was constantly applied to his side. This acted as an absorbent for the fluids of both lung and pleura. When glonoin comp. was administered, the heart would be stimulated to a beat of seventy-six to the minute; when the stimulant was withdrawn, the heart dropped down to sixty beats, but quite strong. The crisis occurred, in this case, on the eleventh day.

In the (eighty-one years) old gentleman's case, the crisis occurred on the sixth day. The pulse dropped down to sixty beats, and even lower than that, when there was much intermission.

In each of these cases I was satisfied to stimulate to a pulsation ranging from sixty to sixty-six, if it was strong and steady. Prostration was not so marked a feature in the case of the old gentleman as in the case of the middle-aged man, because his pneumonia was mild and uncomplicated. Still he is very, very slow to recuperate.

The iodide of lime acted as a cathartic in each of these cases, increasing into a diarrhea with the middle-aged man, but losing that power with the octogenarian.

A year ago last winter I treated a case of pneumonia in an infant four or five days old. The room it and its mother occupied was always hot when I entered. I insisted on them to keep a cooler room, but without effect. The infant died i about two days. The hot room kills, an does it quickly.

Give the patient nourishment every tw hours (if it is only a tablespoonful). have never seen that alcoholic stimul tion was of such vital importance as som claim it to be.

Right here I have an interesting fact t relate in relation to the administering alcoholic stimulation. The patient ha reached the crisis. I ordered whisky t be given, the patient being greatly pro trated. Upon my next visit, the nurse r ported that patient had sinking spells the time the whisky was given (but n every time), and upon being helped on the chamber, at one time he had a spell.

It being time for nourishment to b given, I had them to give the whisky i my presence. The patient was taking th whisky, weakened with water from a te spoon, had taken about three spoonfu when he was taken with an attack dyspnea, with the severity of an attack asthma. Now, was the attack due t weakness, the administration of th whisky, or a concomitant of a thorac disease? I discontinued the whisky, p tient had no more dyspnea. After patie grew stronger, whisky was given agai with no bad effect.

[Written for the MEDICAL BRIEF.]

Our Frightful Infant Mortality Caused by Poverty, Disease and Ignorance.

BY GEO. H. TICHENOR, JR., M. D.,
New Orleans, La.

In the United States thirty-five p cent of children born never reach the a of five years.

Our government maintains an expe sive bureau to combat the diseases live stock, but not one cent is spent protect children from disease. Oth governments endeavor to do somethi for the physical welfare of its citizen The British Government has an inter-d partmental committee on physical d terioration, modeled somewhat after th French consultative committee of publ health, which collects data and gives i

concerning the physical con-
the population. It is to be
some day we will become civil-
gh to demand that a part of
be spent for the benefit of the
the country, and children will
owed to die by the thousands
fficient and improper feeding,
y streets, over-crowded tene-
es, the spread of disease among
ldren from lack of medical
, and ignorance and incapacity
, add their share to the total

of our friends who are fond of
children, and so impressionable
ry when they see a misfortune
on the stage, and are too
to spend a penny to rescue
who die merely from want of
d and clothing, could be made
the fact that disease among
ors' children was just as great
o the happiness and welfare of
ildren as the criminal to that
mmunity, he would waste no
eeing that its ravages were
checked. Even from a commer-
oint, the most selfish thinking
not deny the fact that the
pends for its prosperity on the
by its inhabitants, and every
ficed means a loss both to its
d country, not only of money
ent on it, but also its future
pacities.

ountries realize these facts.
ve children are removed from
, German, Italian and Dutch
d placed in public sanitariums,
are both treated and fed.

the people who died of con-
n the United States numbered
ed and ten thousand and fifty-
than were carried off in the
by appendicitis, railway acci-
htheria, grip, cancer, and ty-
bined. What attempt has been
op its spread among school chil-

s prove that mortality has been
y proper sanitary precautions.
exception of Sweden, Norway
ark, the English have lowered
rate lower than any European
The mortality of children under

one year of age was in the proportion of one hundred and thirty-three per one thousand births, against one hundred and sixty-three, one hundred and fifty-four and one hundred and fifty-one respectively in the previous three years, and an average proportion of one hundred and fifty-four in the decennial period, 1892-1901 (Register General of births, deaths and marriages, 1902 report.) There was also a greater saving of life of children under five years of age. Again, between 1897 and 1901, out of every one thousand children born in urban districts one hundred and seventy died, while for every thousand born in the country only one hundred and twenty-eight died, which shows conclusively the effects of unhealthy conditions of large cities. The statistics show also that the total number of deaths from consumption of all ages and sex was seven thousand less than was the case on the average during the ten preceding years.

Semi-starvation, complicated in many cases by stimulants and narcotics, is the remote cause of most of the physical ills of the poorer classes of the English and American people. "Thirty per cent of these English poor," remarked the *London Chronicle*, "never know what it is to have a full stomach." The South is, beyond a doubt the most fortunate section of our country, at present, in this regard. Still we have to contend with unsanitary conditions in some of the old settled portions of our large cities, where musty, dilapidated pretentious old dwellings have become overcrowded domiciles of an unsorted and unsoaped foreign population, for the exclusive benefit of the landlord, charity hospital, and to furnish occupation for the health officer in recording the spread of disease.

The North and East has its epidemics of pneumonia from lack of pure air in crowded tenement houses surrounded by "sky-scrapers." The West, from too much exposure on the mountains and plains. The South, from these miserable, neglected homes. The stress of competition and low wages of the laborer has produced this condition.

The United States census bureau report on occupations show that the total num-

ber of persons engaged in gainful occupation in 1900 was twenty-nine million seventy-three thousand two hundred and thirty-three, which constituted one-half the population ten years of age and over, and nearly two-fifths of the total population. Of these, four million eight hundred and thirty-three thousand six hundred and thirty were women and one million seven hundred and fifty thousand one hundred and seventy eight were children. The effect of this condition in the majority of cases upon woman herself is to impair her physical fitness for maternity, and to subject her to a false system of education which, mentally and morally, unfits her for her economic office in the family, while the child is practically abandoned to follow his fancy and the lessons of life learned by experience.

The indifference of the people to their needless impairment and destruction of child life is the most frightful feature of our civilization and is the foremost sign of our national decay. It is simply a repetition of a condition which preceded the fall of Rome and every nation of the past.

321 Carondelet Street.

[Written for the MEDICAL BRIEF.]

Monopoly.

BY JOHN A. WELSCH, M. D.,
Farber, Mo.

A few men have the right to organize and adopt rules and regulations to govern their conduct when they arrive at the point that they are afraid of each other as individuals. It would be wrong to deny them this right; but it is a far worse wrong for the contracted few to force their narrow views on the masses by legislative enactment. If the merits of their so-called principles and systems do not appeal to the majority, why should the majority be compelled to accept them in a country having the government of, for, and by the people? Conditions in the medical profession offer a striking example of such conditions at present. Why? Because a certain few claim to know all and everything and to force their views not only on the entire profession, but all the people, by not on legalizing themselves, but having la passed so that they may prosecute who disagree with them, no difference they can substantiate their position not. They do not hesitate to go into t legislative halls of our various Stat with bills which are avowedly again certain religious and medical sects. Th within itself is an admission of lack merit. These bills carry with them a fe appointments, the duties of the same be to use their discretion. This d cretion has proven, in many instanc to be the individual whims of contract politicians. Notwithstanding this fa the profession continues to tolerate its p litical dictators, and in every State whe they do not exist, they are being creat and what do they accomplish? They ho up the profession to the public as norant, and, incidentally, for fees. Th proceed to prosecute their brethren, they can find a technicality on which begin, and their official journals publi under glaring headlines, *"Illegal Pr titioner Fined," etc., etc.;* never do y see where an incompetent practition has been fined. Now why do they n say, "Incompetent Practitioner Fined Has competence ceased to be a facto And is the proper political collar t only test? So it would seem—as th have declined to recognize their own c leges, a diploma from which should the only legal evidence of qualificatio Some States have passed laws to rec nize graduates of certain schools and c leges as competent teachers, and license them as such without examin tion. Why not graduates of reputab legally chartered medical colleges? course, a few politicians would lose the jobs; but if they must be kept, it wou be easier on the profession as a whole pension them, for if they were successf in practice they undoubtedly would not engaged in their present occupation bleeding the profession and fooling t people, or a part of each, as the professi has been largely undeceived for a lo time, and many of the people are waki up and asking questions that puzzle t politicians.

Written for the MEDICAL BRIEF.]

The Sex Question.

BY T. E. REED, M. D.,
Middletown, O.

otice more recent discussions of
" question, but are unable to see
ey present anything new. The
they advance are along the same
s that have been periodically pre-
and proved fruitless, down the

e, as a rule, are very ready to
with theories, fads and dogmas,
little or no heed to truth.
or four years ago we presented
readers of the BRIEF a short
setting forth a principle or nat-
v dominating the sex. We will
rough the courtesy of the same
repeat in part what was said
ping it may take deeper root and
more lasting impression upon the
of this valuable journal.
fe is under law, therefore man
the influences and forces about
e controlled by supreme law.
nt among these laws are "time
of which there are many, but
only mention or deal with the
wn as the "tide" cycle, which is
test cycle of time, it being only
hours, making two complete cir-
twenty-four hours.
enough for our purpose here to
nat these marvelous, world-wide,
rnal electric currents do exist,
touching what is *supposed* to
em. This cycle law is universal.
erywhere present, over land and
e; but it is more noticeable on
r because of its fluid nature, and
ater being strongly magnetic.
ver-prevailing cycle has its in-
upon all life, both organic and
ic, and it is impossible to over-
its value to man, from the mo-
germination to that of dissolu-
both health and disease periods.
tidal action can be thought of as
nt beart-beat or breathing of the
Man is a little world within him-
ving a like breathing action to
e motion in the earth. When a
eps, and the breathing is involun-
e periods occupied in inhalation and exhalation are equal in point of time. The former (inhalation) imbibing oxygen, being *positive* in action, corresponds to the rising tide, which bears with it life-giving strength, essence, energy, force; while the latter (exhalation) yielding carbon, is *negative* in action, and corresponds with the falling of the tide, carries back with it weakness, imbecility, decay and death.

Life, then, enters the period of its existence during the flow hours and makes its exit during the ebb hours of the tide cycle. It is invariably true where the action is natural, and nature is not interfered with, that births take place during the rising or *positive* wave and life goes out during the falling or *negative* wave current.

We have now come to the point we started out to emphasize, viz.: That this power, exercising an all-pervading influence over the elements of man's nature, governing both the entrance upon and exit from the stage of life, also determines the sex, by the *time of copulation.* That is, this mutual act taking place during the flow or *positive* hours, the progeny is a *male*, but when occurring in the ebb or *negative* hours, a *female* is the result.

But we hear some one say that the time of copulation does not always determine the time of conception? It *is* the *time*, however, in which the cells are thrown off, that marks or fixes the sex, let conception occur thereafter when it will. We are inclined to think that the cells are neutral, until expelled from their respective beds, the *time wave* alone determining their positive or negative—active or passive—male or female nature.

We have given this subject most diligent study for a number of years and can speak authoritatively in support of this statement. Whenever we have been able to locate the *year, day and hour* of the copulation producing the result, we have successfully named the sex. A number of my married patrons have procured the sex desired by observing this law in their actions.

In leaving this subject for this time, we beg of those interested, to investigate for their own satisfaction, as we have done. *We claim to have discovered the* LAW DOMINATING THE SEX.

ILLINOIS STATE BOARD OF HEALTH—JANUARY 19-21, 1905 EXAMINATION.

(A) Physical Diagnosis. (B) Ophthalmology and Otology. (C) Pediatrics. Physicians.

GEORGE W. WEBSTER, President.
JAMES A. EGAN, M. D., Springfield, Secretary.

The questions should be folded with the answers. Candidates are not allowed to copy the questions.

(A) PHYSICAL DIAGNOSIS.

1. What are the physical signs of a dilated heart?
2. What diagnostic signs may be elicited in the stage of engorgement of lobar pneumonia by percussion? What by auscultation?
3. Under what conditions is the first heart sound accentuated? Under what conditions is it enfeebled?
4. What are the physical signs of thoracic aneurysm?
5. How would you differentiate chronic tuberculosis from (*a*) chronic bronchitis, (*b*) emphysema, (*c*) consolidation following pneumonia?

(B) OPHTHALMOLOGY AND OTOLOGY.

1. What are the causes of otitis media? What is the treatment for acute otitis media?
2. What conditions of the eye accompany chronic interstitial nephritis?
3. What is the function of the choroid coat of the eye? Of the ciliary muscles?

(C) PEDIATRICS.

1. Give the etiology and symptoms of rachitis.
2. Give the relation of fats, carbo-hydrates and proteids in cow's milk and breast milk.

(A) Gynecology. (B) Laryngology and Rhinology. (C) Medical Jurisprudence. Physicians.

(A) GYNECOLOGY.

1. Differentiate between pyosalpinx and tubal pregnancy.
2. What are the degrees and causes of prolapse of the uterus?
3. Give the differential diagnosis of ovarian cyst occupying the abdomen and pregnancy and distended bladder.
4. What are the principal varieties of ovarian cysts? How would you differentiate a small ovarian cyst from a distended tube?
5. What are the symptoms and physical signs of ectopic gestation?
6. How would you treat a laceration of the perineum which extends through the sphincter ani?

(B) LARYNGOLOGY AND RHINOLOGY.

1. What are the principal tumors of the larynx? What are the common symptoms of tumor of the larynx?
2. Give five causes for epistaxis and the general treatment.

(C) MEDICAL JURISPRUDENCE.

1. How would you differentiate between (*a*) narcotic poisoning, (*b*) drunkenness, (*c*) uremia, and (*d*) concussion?
2. How would you determine that a person had died from starvation?

OBSTETRICS—PHYSICIAN.

1. What is ballottement and what is the value of it as a sign? What conditions make its use impossible?
2. What are the immediate and remote dangers of abortion? When is abortion inevitable?
3. Give the prognosis for mother and child, and the diagnosis of placenta previa?
4. What forms of pelves are principally contracted in the antero-posterior diameter?
5. What are the indications for podalic version, and what are the methods of performing it?
6. What is embryotomy, and what operations are classed under this term?
7. Describe the management of the third stage of labor.
8. At what period during pregnancy are the fetal heart sounds heard? What is the frequency of these sounds, and where are they best heard?
9. Give the differential diagnosis between fibroid tumor of the uterus and pregnancy.
10. Upon what signs would you make a diagnosis of multiple pregnancy?

GENERAL SURGERY—PHYSICIAN.

1. What are the cardinal symptoms of fractures? What are the special symptoms of fracture of the olecranon?
2. What are the sources of loose and foreign bodies in joints? What joint is usually affected?
3. Give the symptoms, methods of diagnosis, and name the methods of treatment of enlarged prostate.
4. What are the infective granulomata? Give examples.
5. Briefly describe the preparation of a patient for an abdominal section.
6. What is staphylorraphy? Uranoplasty? Lithotomy? Enterectomy?
7. What are the varieties of fistula in ano? What is the operative treatment?
8. Give the classification of aneurysms, and tell how spontaneous recovery may occur.
9. What is a sprain, and what tissues are involved? Give treatment for a sprain of the ankle.
10. Name the general anesthetics commonly used, and give the chief advantages and disadvantages of each.

MEDICINE—PHYSICIAN.

1. What is pseudo luekemia? What are its principal symptoms and prognosis?

rentiate broncho-pneumonia from
pneumonia and capillary bronchitis.
t is exophthalmic goitre? Give its
mptoms.
t is insolation? What are its two

t conditions commonly cause icterus?
t are the general classes of diabetes,
each diagnosed?
t is variola? Describe the stages of
e.
t are the chief sequelæ of scarlatina?
hat signs and symptoms would you
iagnosis of chronic interstitial ne-

ne pertussis. Varicella. Rubella.
rosis.

ANATOMY—PHYSICIAN.

ribe the patella, giving its articula-
nuscular attachments.
e the muscles of the abdomen, from
ward, giving origin and insertion of
irections of their muscular fibres.
ribe the pericardium.
e the divisions of the aorta, and give
al branches from each division.
the origin, and insertion, and nerve
he sterno-cleido mastoid muscle.
the origin of the fifth cranial nerve
ts chief divisions.
the gross anatomy of the stomach.
ribe the structure of the mammary

t are the graafian follicles? What
is proligerus?
what you know of the location and
f the thyroid gland.

Y AND BACTERIOLOGY—PHYSICIANS.

rentiate between fatty degeneration
infiltration. What tissue is usually
the former?
t are the pathological conditions in
s?
e the principal forms of connective
ors, and state the tissues of which
mposed.
t are the principal differences be-
inomata and sarcomata, as to their
the blood vessels?
t is hydremia, and with what general
is it often associated?
t are the principal forms of bacteria,
o they differ in appearance?
Koch's postulates, or rules, in re-
cterial cause of disease.
rentiate between pathogenic and non-
bacteria, and give five examples of

ribe the bacillus tuberculosis, and
s of a method of staining it.
w would you differentiate dysentery
oid fever by bacteriological tests?

EDICA AND THERAPEUTICS, PHYSICIAN.

t mineral acids are used medicin-
what form is sulphuric acid usually
in what doses?

2. From what is colchicum derived, and what is its principal alkaloid? What are its therapeutic uses?

3. What are the therapeutic uses and dosage of chloral hydrate? What is the principal use of croton (butyl) chloral hydrate?

4. What is a mydriatic anodyne? Give three examples.

5. What are the uses and doses of apomorphine hydrochlorate?

6. Give a rule for calculating the dosage of medicine for children.

7. Name three digestants, giving their origin, therapeutic uses, doses, and substances which are incompatible with them.

8. What is meant by "specific action" of a drug? Give three examples of specific action.

9. How may mercury be administered in syphilis, and in what forms is it used in each method of administration?

10. Write a prescription for a mixture to contain sixty grains of iodide of potassium, thirty grains of nitrate of potassium, four drachms each of the fluid extract of black-snake root, and of glycerine, with enough wine of colchicum seed to make two ounces, the dose to be a teaspoonful after each meal.

(A) Physiology. (B) Neurology. Physicians.

(A) PHYSIOLOGY.

1. What is the function of the saliva? Of the gastric juice? Of the pancreatic juice?

2. What is the tryptic action, and what does it accomplish?

3. What is bile? What are its functions?

4. What is a glomerulus of the kidney? What is its function?

5. How many classes of foods are essential to the maintenance of health in man? Give an ordinary example of each class.

6. What is the function of the external ear? Of the auditory canal? Why is the tympanic membrane sloped from outward inward?

7. What changes occur in atmospheric air during respiration?

(B) NEUROLOGY.

1. What is the effect of a lesion of the upper part of the lumbar region of the spinal cord?

2. What is acute poliomyelitis? What are the principal pathologic conditions of this disease?

3. What are the chief diagnostic points in epilepsy?

(A) Chemistry. (B) Etiology and Hygiene. Physicians.

(A) CHEMISTRY.

1. Briefly describe arsenic, and name the hydrogen and oxygen compounds with arsenic.

2. Give the chemical formula for saltpetre. For red iodide of mercury. For ammonia.

3. Give the formula and properties of mercuric chloride.

4. What is menthol?
5. Describe Fehling's test for sugar in the urine.

(B) ETIOLOGY AND HYGIENE.

1. What is the danger, and what is the source of carbon monoxide in living rooms?
2. What is ventilation? In what part of an occupied room is the air most impure, and why?
3. What are the qualities desirable in water for drinking purposes? What is hard water?
4. What are the best means for preventing the general spread of tuberculosis?
5. What methods would you employ to limit the spread of disease in a case of small-pox?

[Written for the MEDICAL BRIEF.]

Pro Bono Publico.

BY JOHN T. DE MUND, M. D.,
Ridgewood, N. J.

With all due respect, I have never yet met an educated physician (italicize as you will).

An Omnipath has yet to be born, is still embyronic, who might thus be able to vouchsafe the "repeating role" in medicine. The chasm between the sublime and the ridiculous, is still the same old sesame. This family name is dear and sacred, and yet from whence it came no living mortal knows. We all have to gulp down our ignorance at the footstool of wisdom.

The true clinician is a modest entity, one who opposes with firmness, or yields with graciousness. He is not afraid to use the still small voice when called upon to defend truth—Truth is no toy! Much less is he backward to criticise stupendous stupidities, or to be more plain, the so-called standard authorities, when in the wrong.

The true clinician has no time or use for hybrids—misnomers, if you will. If pneumonia and typhoid are not of this class, then the Anglicized view of the matter is sadly in fault.

Give a disease its proper name or classical classification, pure and simple. A just nomenclature is like a just weight.

A true clinician is compelled to ignore what is useless, nay harmful, Many misnomers are still in vogue, and custom as well as usage still sanction them. They should be relegated to the shades of oblivion. Oh, these beautiful text-books! Full of misnomers. Replete with sophistry, purology, etc. No modern young man, after four years' course, knows it all. One of the mysteries I am unable to solve is how any intelligent physician can appear before a class of students and harangue them on bronchitis, pneumonia, typhoid and the like. In three words, "*itis apis potitis*"—you get two *itis*'—*i. e.*, double inflammation. If there is a mystery about the *itis*, still more so in the three words above mentioned! Oh, ye gods and little fishes, "dunno"—but still I teaches!

'Twas inflammation of the lungs as such (pneumonia, eh?). There is no use making a mountain out of a molehill. The radically heroic and unprecedentally large doses of calomel—*calomel*, as it were, "*cincified*" *said inflammation*, has, in my hands, given more satisfactory results. Temerity is not rashness when the cornucopia of success ensues.

In acute inflammation of the lungs in the severest type, calomel in ten-grain doses, every four to six hours, day and night, *pro re nata*, will eliminate seven-tenths of the *materiæ morbi* of the disease in from forty-eight to fifty-six hours, leaving three-tenths of the disease to be carefully nursed. Over-zealous doctoring is wholly uncalled for. If there is any other drug that will accomplish as much, I am not aware of it. In forty odd years of active practice, the last ten of which, when I have resorted to this heroic treatment, I do not remember of losing a case. Doctors doctoring the heart in inflammation of the lungs! What for? The heart is not sick, unless you make it so by resorting to "purgatorial placebos." The true clinician is not unmindful of the "portal circulation," and its derangements in inflammation of the lungs —the *pons asinorum* of the attendant. I am not aware of any authority referring to this all-important "*item*" in the treatment of said disease.

We must all admit the smile of the patient is more attractive than the shroud of the victims of misplaced confidence.

Ridicule, satire and sarcasm are often admissible. But for any physician to tantalize old age is unprofessional, ungentlemanly, as it is uncalled for.

tten for the MEDICAL BRIEF.]

e Medical Fisherman.

C. E. BOYNTON, M. D.,
Los Banos, Cal.

ctor, how do you feel when tors seem to step out of their ke presents to your patients?
o what the editor of an eminent ournal, who has, on the side, an interesting and cheap book, octors may order more of said distribution in their neighbor-s:
vill talk of the book, and the r who sent it to them, and will become an advantage to prac-

ne mother of one of my patients wn, a lady doctor went out of send her a small present. Now, ot have done a similar thing to s doctor's patients. People fre-nange doctors for no good rea-oted by a bait in the form of a that a competing doctor sends such things lead up to graft. nother doctor wishes to go that etter, and they begin to bid for ce of people in that way. How k to the public? It is a little little to talk about, perhaps, you, Doctor, have lost the prac-good family because another es Johnnie a ten-cent picture may think it strikes home.
should give his time to higher n tickling up a practice. Such lo very well for candy stores, parlors, etc.
e heard much said about the d doctor that pleases the heart of Mrs. Stop-and-go-fetch-ing little dirty-faced Andrew on his lap, and supplying him with candy, and uttering flat-from truth. If there is a mag-at draws us to a pretty or a child, that is another thing, but uch magnetism as a mercenary trifling on the outskirts of

elf-forced" conversation with squash, ostensibly because we sted in his pig crop, but really because we have a yearning for his patronage, is one of the ways of the doctor who would steal a case if he can. Be nice and polite to all, but do not flip your soft-soap at another doctor's patient or family. It is very bad behavior for a doctor, and no one likes to have another physician work it on him. It is too easy. Do not get so hungry for practice that you are little. When you like people, and can not help it, when it is spontaneous, unaffected, and natural, be yourself, throw off reserve, but if you play an affected part all the time, to catch practice, you will soon wear a gloss of mannerism that is not honest, and people of keen senses or instinct will, like the dog, growl when they get near you.

It is absolutely dangerous to be, for mercenary motives, what you are not. The bright child feels it, somehow, when you flatter him. Then, never flatter. It hurts you. It perverts or distorts your character, and character is a thing of tender growth.

[Written for the MEDICAL BRIEF.]

A New Resource in Forceps Application.

BY WILLIAM B. ELY, M. D.,
University Place, Neb.

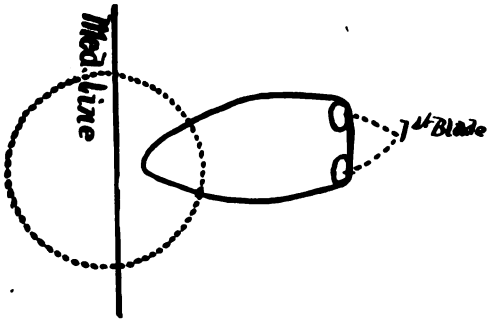
It occasionally happens that one is called upon to deliver with forceps before the os is fully dilated. Such a case came to me in 1899. The os was dilated to about the size of a silver dollar and the neck soft and easily distensible. The first blade went to place without difficulty, but the second could not be made to enter. After several ineffectual attempts, the idea flashed across my mind that the first blade had drawn the lips of the os over to the extreme right (my own right), carrying the left lip beyond the middle line. In such a situation, of course, the second blade could not be made to engage the lip so as to enter the womb.

I had about made up my mind to abandon forceps to employ podalic version when the thought came to me that if the second blade could be induced to enter close beside the first it would go to place readily enough and then be worked

around to its proper relation with the first and lock.

So, removing the second blade completely, I re-entered it so as to "spoon" with the first blade at the inside. It slipped along the inner surface of the first blade with perfect ease and was guided to place like a knife along a director. Having entered the womb, the work of teasing it around to the opposite side was a simple matter, with which every doctor of any experience is familiar.

In all such cases the first blade draws the lip of the os over to one side something like this:



The second blade could not be made to engage the os, but must slip over toward the right and against the first blade over the skull of the fetus. But, entered along the inner curvature of the first blade, the first blade acts precisely like a director for it, and it is surprising, to one who has never before seen it, how easy and simple it is to guide the second blade to place.

Since the first experience, I have had four other similar cases. In neither of them did I attempt to introduce the second blade in the orthodox way, but employed the maneuver described above, and in each of them I had the same pleasant experience. But I can easily see that there might be difficulty in a case where the os vaginæ is small, and the perineum rigid; but such cases are comparatively rare. This procedure may be commonly known, but my impression is that it is new, since I have never met a physician to whom it was not new, and my acquaintance is wide in the profession.

When the os is dilated to the size of a dollar, it is laid down in the text-books that the second stage is begun; that degree dilatation is the accepted line of demarkation between the first and second stage, and application of forceps through so small an opening is always considered to be difficult. But sometimes it is desirable to apply them at that time, and the value of this little trick consists in the fact that it renders such application of forceps comparatively easy.

[Written for the MEDICAL BRIEF.]

Intellectual Exercise of Women—Painless Labor.

BY SILAS HUBBARD, M. D.,
Buffalo, N. Y.

Much study by women is likely to result in irregularity of menstruation, most commonly of amenorrhea, by diverting the circulation of the blood from the pelvic organs to the brain. When amenorrhea is caused in the above way, I advise physicians not to give emmenagogues, for a woman must take the choice of being a good animal without the hard study, or have the hard study and menstrual irregularities, and, besides, if she is nursing a child at the same time that she is strenuously exercising her intellect, the milk is likely to fail, for the reason that the blood is sent more to the brain than to the breasts. Very brainy women are generally poor nurses.

Women ought to be relieved from politics and strenuous exercise of the intellectual faculties, and many responsibilities, for they unfit her for raising and caring for children. The women poets, authors, and orators, have very few children, and they are not likely to become Presidents of the United States, although women with good natural abilities and not too much hard study have children in abundance of the right sort.

PAINLESS LABOR.

Dr. W. B. Ely, in the December BRIEF, does not give us the sex of the two children of the two births he describes. Sex sometimes plays an important part as regards painlessness in birth. The girl's head is more ossified than the boy's head. His first case, I should guess, must have been a boy, it having weighed one-fourth of a pound more than the second child,

second child, I should guess, must
n a girl, and that its head must
en more ossified than the first,
ccounts for the labor being more
I wish physicians, in giving
labor, would give the sex of the
d not leave us to guess.
gh the heads of boys at birth, in
are more pliable than girls, I did
me attend a woman in her third
ent who gave birth to a girl, and
her reiterated it often that the
born without any pain on her
d that this indicated that the
a natural Christian, and when
grew up to womanhood, and pre-
herself for membership to the
the mother urged that the young
was a natural born Christian.
the members in private gave it
opinion that the mother ought to
cted in theology; however, there
st of grown-ups who do not be-
y ought to be born again. Phy-
generally believe it is only their
describe cases of distocia.

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ritten for the MEDICAL BRIEF.]

Notes on Childbed Fever.

BY J. A. COPPEDGE, M. D.,
Alanreed, Texas.

practice of thirty years a man
few things that are not in medi-
or journals. To me, puerperal
s, or child-bed fever, has a per-
nificance, as my own mother and
dmothers died from it.
aware of the advantages of
and cleanliness and judicious
to abort or cut short many
d cases. I am also advised of
ne curette and its uses; but, in
plan of treatment, and as an
factor of success, I find nothing
in well developed cases than the
application of fly-blisters, and
ed this plan of treatment in 1885,
enty years ago, and I do not find
of in any of the medical books
als.

.—Mrs. Y., aged thirty, white,
hild, waited on by a midwife;
° F. Wild, frantic and delirious and had to be held in bed; bowels much swollen. Had Dr. S. to meet me twice in this case. No results from our treatment and no abatement of the fever—still at 106° F. At the second trip, we both expected her to die before night. I proposed to Dr. S. that we blister. He said that it was too late; was not laid down in the books, and would do no good in the case. At night I went back to see the lady, and told her husband that I wanted to put a blister on her, but that it was not laid down in the books, but that a blister was good in pleurisy and pneumonia, and that I believed it would give her a chance, and he consented to have it put on. Fever 106° F., bowels tympanitic, and still delirious. I applied a blister of cerate cantharides, or Spanish flies, over womb and right side, about ten by twelve inches. In four hours, had a good blister, fever went down to 100° F., patient rational and quiet. Put her on tonics and dismissed her after two more visits, and she made a good recovery and had several more children.

Case 2.—In 1885, Mrs. B., a few days after confinement. Bowels tympanitic; fever 104° F. Applied an eight by ten blister over zone of greatest tenderness, first visit, and dismissed on third visit.

In the past twenty years I have had about ten typical cases of child-bed fever; blistered all cases, and lost none. To all cases of lying-in women, I give four No. 1 capsules of quinine a day. Keep bowels regular, with oil or salts; use uterine douches of warm to hot water, a heaping teaspoonful of baking soda to one quart of water, one to two times daily, and generally have prompt recoveries.

May the BRIEF and its Editor and "Old Doc," and all of its correspondents live long and have continued prosperity.

[Written for the MEDICAL BRIEF.]

How About Your Diploma?

BY Z T. DODSON, M. D.,
Cleveland, Wash.

In the BRIEF for April which, by the way, reached me ahead of its birth, I note what A. M. Richmond, M. D., has to say on "The Issue," also your comment on the same. I wish to congratulate you on

the stand you are taking in this matter; it is along the lines that I have been advocating for years. The idea of a doctor, or any one else, for that matter, being compelled to appear before a board for examination, every whip-stitch, is ridiculous in the extreme. If it keeps on at this rate, we will be required to pass an examination to evacuate the rectum or urinate. A diploma from some accredited school ought to admit any one to enter the profession of his choice, and I go you one more: If any one can do a certain thing well, I say let him do it, whether he has a diploma or not. If we are not competent, the public, our patrons, will soon discover the fact, and diploma nor anything else will be of benefit to us. We must necessarily stand or fall by the judgment of the populace. I am tooth and nail against anything akin to class legislation, and it is my belief that anything along this line is very close thereto. Individually, I would be in favor of wiping all such laws off the statutes in State and Nation. I trust that this matter may be taken up by some of the fraternity more competent to discuss such matters.

I am a regular graduate and have been in the medical ranks since 1877.

[Written for the MEDICAL BRIEF.]

Oil of Hyssop.

BY ANNIE K. BAILEY, M. D.,
Danbury, Conn.

For the sake of those using the oil of hyssop I would offer the following as a general and practical rule, in order that the oil may not be given too long, or beyond the point of need:

If the case is severe, begin with five drops three times a day, and reduce to two or three drops as soon as improvement on any of these lines begins, viz., the disappearance of symptoms, a more healthful expression of countenance, or a general condition of better feeling. The patient's own testimony is a safe guide to reducing the drops. Reduce rather than increase. In my experience the action has been very quick, marked improvement taking place within two weeks' time in cases of syphilis, and in a case of cancer of the uterus, with discharge, the discharge had practically ceased in about that length of time, or a little longer.

Prescribe four tumblerfuls of water, to be taken during the day to cleanse, wash out, or remove from the system that prepared by the hyssop to be eradicated.

In ordinary cases, two or three drops will be found sufficient, if the action should not be as rapid. It provides against any possible idiosyncrasy of the patient from any over-stimulating effects.

Personally, I am intensely interested in the authentic virtues of this volatile, essential (ethereal or distilled) oil.

[Written for the MEDICAL BRIEF.]

Sciatica.

BY ESTEBAN HAMMOND, M. D.,
Noria Sinaloa, Mexico.

In BRIEF, January, 1905, page 91, DR. H. G., N. J., asks for help in a case of sciatica. Let me tell him what once happened to me. I had a very severe attack. Pain from notch to heel. Was perfectly helpless and confined to my bed. I tried every remedy that I had ever heard of for some ten days; no relief. I then wrote to a medical friend of mine. He sent me medicine. I applied his remedies fifteen days, getting no better. Got so low down that hiccough came along to pilot me over Jordan. I then recollected that I had seen an account of a miner in California who was confined to his bed for several months with rheumatism. He had spent a small fortune in medical advice and medicine. He finally left off all kinds of medicine and commenced using petroleum, both internally and externally. In less than two months he was back at his work in the mine. I immediately took a teaspoonful and had it applied to seat of pain. This was in the evening, and that night I got a good rest. Slept better than I had during any night before. Felt much better next day. Continued petroleum, and in three days all pain was gone. A few days after let up on petroleum and finished off with infusion of guaiacum wood.

This happened some years ago. I never had, afterwards, any trouble of that kind.

since then prescribed petroleum practice, and all the patients that prevail upon to take it have gotten I think that the crude oil might er, but it is not to be had here. I ne refined and it fixed me up all

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Written for the MEDICAL BRIEF.]

Recital of Mistakes.

BY J. J. STRINGER, M. D.,
Oakvale, Miss.

is no honest man living or dead he would, or could, say truthfully, would say, "I have learned more nistakes than my successes."

t all the articles I read in the nd by the way I read them all, ng something the author has done, ver a *word* about what he has not

ers of the BRIEF family, why you tell us of some of your mis- hat we too may be as wise as ever hereafter avoid them? Why you tell us of the time you gave efore the womb was empty, and how you "cussed" yourself for ; and misusing the best and near- ific, used in the right place and ne, ever yet known to the medical on.

e gave ergot to a primipara, x years of age, about the twenty- ur of labor; result, general con- s of womb, with no expulsive force

three hours delay, and a forceps I wondered why I did not cause to change her position and use over the abdomen.

I was nearly out of breath, pull- retained placenta when it gave ide the uterus, and the flooding much worse; then, after introduc- ntire hand and nearly killing the man, I succeeded in removing the piece by piece, and learning next wait.

xt was a case of slow labor in a ra, head born, cord around neck. fforts (according to Playfair, and hmel of Chattanooga) I endeav- pull cord over head; result, rup- ture of cord at umbilicus of child and severe hemorrhage following.

My next was a case of icterus in a baby six days old, with hemorrhage from the cord, around umbilical attachment. After trying all the septic remedies ever written about, I decided the baby would die, and sent for *an old doctor*, but he, *too*, failed to arrest the bleeding, and after we both had informed the then much-distressed parents that there was no chance for the baby, an old, ignorant "granny" negro woman came along and applied wheat flour and stopped hemorrhage at once.

My next, well, they are so many I hardly know which one to tell about next, but here goes for one: A lady, six hours in labor, with puerperal eclampsia, four "fits" before my arrival, raging on my arrival with the fifth one, instead of introducing spoon handle wrapped with napkin I held in my hands, I, of course, put my index finger in her mouth. When her fit was over I was still in the throes of mine.

In this case I gave fifteen drops of veratrum viride, and made as good an instrumental delivery as anybody could have done, with as sore an index finger as I then had, with no more recurrence of "fits."

The next was when in dread of people saying, "If the old doctor had been here Pete would have got well." I sent for the old doctor and Pete got well, and then everybody said: "If it had not been for old doc. poor Pete would surely have died."

More anon.

[Written for the MEDICAL BRIEF.]

Question?

BY T. A. JONES, M. D.,
Selfs, Texas.

From the days of Hippocrates down to the day of Koch's discovery, scrofula was considered to be of syphilitic origin, and was treated and cured by iodides. Since Koch it is proven to be tuberculous.

Question: If iodides cured tuberculosis when we thought it of syphilitic origin, why will it fail now to eradicate the tubercular bacillus when we know it to be tubercular?

We are taught in Hare's Therapeutics not to use iodides in phthisis pulmonalis for fear of sloughing of necrosed tissue. What is the disease doing *per se* but sloughing necrosed tissue? This being the case, why not hasten the process by iodides, and let the cure be by *similia similibus curantur?* Theoretically it would do it. Why not clinically?

I want all the readers of BRIEF to think over this. Brothers, we must not depend altogether on our text-books. We must reason ourselves, and learn to be free thinkers. Let me hear from you, brother physicians, through the BRIEF.

[Written for the MEDICAL BRIEF.]

Pure Air Cure for Consumption.

BY E. N. MULLINNIX, M. D.,
Linton, Ind.

In a practice of thirty-five years, I have treated a good many cases of consumption. The mortality is so large, and so many of our dear friends have fallen, that it is no wonder such heroic efforts have been and are now being made to stop it.

When the profession gets thoroughly acquainted with tuberculosis, rational means will be used for its cure.

The pure air of Nature is, in my judgment, the only cure. Then how to apply it is the next. I have had some experience. I went with my wife to the mountains to cure her of consumption. Some relief came, but no cure. Then I came east to north central Kansas. In early summer, for days there is not a cloud in the skies. The wind blows a tremendous gale, whirling around buildings, through cracks and crevices, taking your breath and hat away if you are not on the lookout, turning over boxes, tubs, and anything loose about the premises. This is pure air, purified by its velocity.

Weak and debilitated people with "lung" trouble sit out on porches in this air, wrapped up well, and enjoyed it, and improved fast. I aim to convey the idea that a hall built as an annex to a consumption hospital, with the apparatus and machinery necessary to agitate and circulate a current of air, with proper velocity to make it interesting to patients well wrapped, would cure more people than all medicines and appliances I have ever seen or heard of.

Hospitals are being built, and medicines compounded that are expected to cure a "house" disease. Pure and abundant air is the only cure, Nature's remedy.

I read the BRIEF, and appreciate it because it is good.

[Written for the MEDICAL BRIEF.]

Cough Following Colds.

BY ROBERT C. KENNER, A. M., M. D.,
Louisville, Ky.

At this season the commonest of all ailments is cough that follows ordinary colds. They can be readily cured, in most cases, with the following cough mixture:

℞ Syrup Ipecac.....1 ounce.
Syrup Tolu.....1 ounce.
Sweet Spts. Nitre.....1 ounce.
Paregoric.....1 ounce.

Of this, one half teaspoonful should be given, mixed with a little water, every one or two hours, until the cough is less troublesome, then every three hours thereafter.

If the cough has existed for some time, it is well for the patient to have cod-liver oil and creosote. The following is a good emulsion:

℞ Beechwood Creasote.....160 minims.
Cod Liver Oil..... 4 ounces.
Whisky..... 4 ounces.
Mucilage of Acacia..... 8 ounces.

M. Shake well until emulsion is formed. Dose: A teaspoonful after each meal, and at bedtime.

This is one of the best remedies for chronic bronchitis I have ever used.

2511 Portland Avenue.

Meeting of Texas State Board of Medical Examiners.

The Board of Medical Examiners for the State of Texas (regular) will hold its next meeting in Austin, Texas, May 2, 3, 4 and 5, 1905, for the examination of applicants and transaction of other business. For further information, address the secretary.

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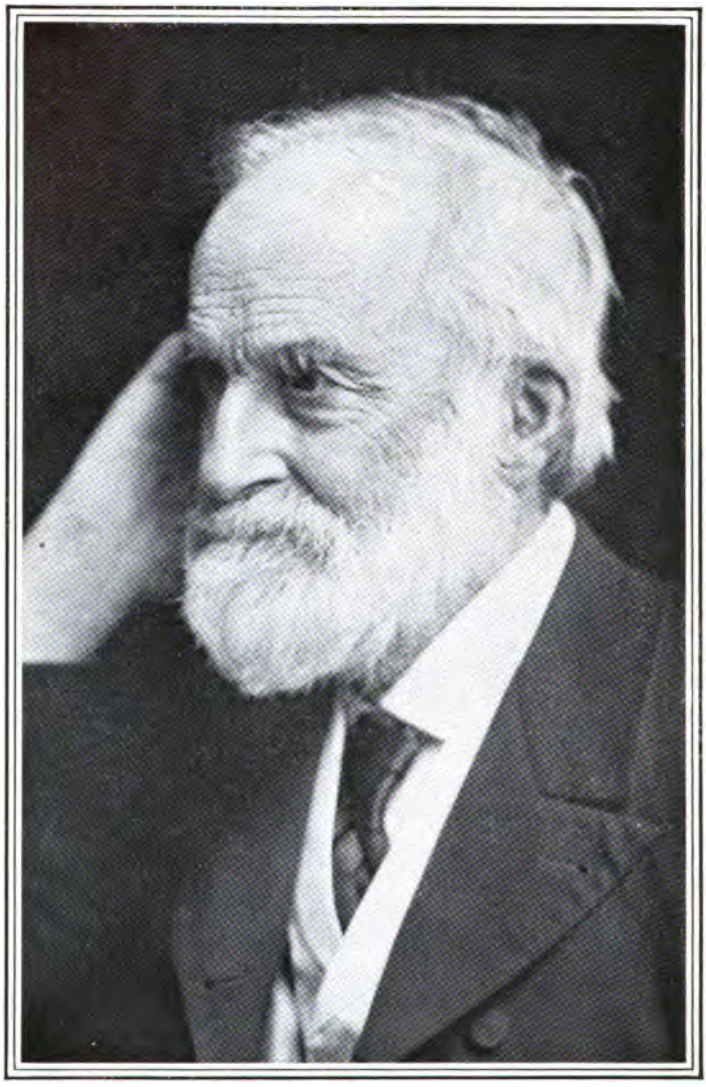
M. M. SMITH, *Secretary*.
Austin, Tex.

T. Outterson Wood.

M. D., F. R. C. P., Edin.; M. R. C. P., Lond., Senior Physician West-End Hospital for Nervous Diseases, Welbeck Street, West; and President-Elect of the Medico-Psychological Association of Great Britain and Ireland. London, England.



Silas Hubbard, M. D.

Graduate Castleton Medical College, Castleton, Vt., 1842; Physician and Secretary to Buffalo City Dispensary, 1850 to 1855; Member of the Buffalo City Medical Society, 1842 to 1855; Vice-President 1852 to 1854, and Delegate to the American Medical Association, 1852; Member Erie Medical Society, 1842 to 1855; Member McLean County (Illinois) Medical Society, 1855 to 1880. East Aurora, N. Y.

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Editorial.

Cerebro-Spinal Meningitis.

disease is very prevalent and un- severe this year. Who can tell ? Is it due to a modification of at- eric conditions resulting in over- ation, such as is produced, for in- in a lesser degree, by the electrical ance known as a thunderstorm? know how the atmosphere is fresh- nade more buoyant and exhilarat- Nature's convulsion. A cold wave omewhat similar effect.

ndition of over-stimulation, topped wet spell, tries the nerve centers y. Many of the cases on record history of feeling unusually well the attack. The high winds which at this season probably play some the etiology of the disease, as this time when it makes its appearance. know the peculiar effect of March animal kingdom. The expression, as a March hare," is an old one, showing that natural conditions are responsible for the over-stimulation.

What is the exact pathology of the disease? Is there a congestion of the spinal centers, as well as of the meninges? The chills and fevers and darting pains would tend to indicate this. What is its relation to grip, if any?

The spine, as a factor in disease, does not seem to receive the attention that it should. As lesions which affect this organ are so often and so promptly followed, when the acute stage passes, by paralysis, with degeneration of tissue or death, it is necessary that efficient treatment should be inaugurated at the earliest possible moment.

Cerebro-spinal meningitis offers a big field for study. The man who shall devise a successful treatment for the disease will win renown and the lasting gratitude of those who are now groping in the dark for some means of relief.

If any physician who reads this has a treatment for spotted fever which has proved successful, he will do mankind a service by making it known through the various medical journals.

The subject is one which merits the most painstaking investigation. The disease is attended by frightful suffering and if the patient lives, he is usually stricken in some way. Many are made blind or deaf, or otherwise injured for life.

The Editor has never treated a case of this disease and admits that he knows nothing about it. We would very much like, therefore, to hear from somebody that does know.

Has any one used bromides persistently in this disease? Is it really infectious?

Begins to Kick.

In a recent book about America, the author, Carl Zimmerman, abuses Americans in every possible way. The fact is these fellows in Germany are becoming disgusted because they can no longer hoodwink the American. That is where the shoe pinches. When the calculating man finds that he can not make the other fellow do as he pleases or use him in any way, he begins to see his faults in large type.

Mr. Zimmerman says the American thinks only of self and self-advancement. Naturally, we like to govern ourselves instead of turning the job over to the other fellow. We are brought up in an atmosphere of liberty, taught to be self-reliant, energetic and progressive from the cradle.

He goes on to say that we disregard the feelings of others. It is true we do not accept all the fads which crop out in Germany from time to time, and this makes them feel bad, of course; nor do we allow ourselves to be exploited by German commercial houses to the extent they would like.

Nevertheless, we appreciate the German character when it has been acted on by the broadening influences of American liberty. Some of our ablest physicians are recruited from the professional ranks of Germany and we have no better citizens than the Americanized German. This same German-American is the most merciless critic of provincial, autocratic Germany, when he revisits the land of his nativity, after a few years under the American flag.

The German who makes his home in America has the same thirst for liberty which our forefathers felt—the thirst engendered by a cramping, restricted environment, an atmosphere made oppressive by too much law and rampant militarism.

When he goes back to Berlin, after a few years of American life, the man born and bred in Germany makes more fun of her peculiarities and provincialisms than we do. In fact, the native American has a certain respect and admiration for a people having so many sturdy traits, and knows how to make allowances for the narrowing influences of their home environment, but he will not be worked, nor will he submit to the dominion of the foreigner, now that his eyes are open to the uses to which his continental brother would put him.

The fact is, the American has been altogether too good-natured and compliant in the past. He has been looked upon as an easy proposition. Now that he is developing an unexpected self-assertion and determination to protect himself, the foreigner is disturbed and proceeds to give us a lively rating.

The patriotism of our German-American citizens affords a truer estimate of American character and methods than the spleen of the German in his native land, disturbed in his commercial calculations by the revelation of American independence and ability to look out for their own interests.

It requires little penetration to discover the inspiration of this book and to discredit the sentiments of the author as being unfounded.

To Make Rules for the Other Fellow.

Some people take a queer position in joining hands with the continental foreigner and the substitutor to make rules for the other fellow. For illustration, the Editor was asked the other day, "What do you think of the effort to make the manufacturer give his working formula, as required by the American Medical Association, for publication in a semi-official directory?"

We replied that we should regard the manufacturer who complied with this re-

nent as a fit candidate for a lunatic n.

en the manufacturer informs the sion what his preparation is made so that its properties and indica- may be clearly understood, that is e knowledge needed for practical es. Any further information can enefit the substitutor and injure the by vitiating his results.

Editor has in mind one prepara- which he has used off and on for years with admirable results. He from personal experience that a iption for this remedy does not the same product, either pharma- ally or therapeutically. If the work- rmulas of all our standard remedies common property it would multiply ncertainties of practice a thousand

ther illustration. We all know he green root of stillingia sylvatica. into a tincture or decoction, will he worst forms of syphilis. This roved during the civil war. If, now, nufacturer made a reputation for a ration made from the green root and rocess of manufacture became com- property, many times it would be from the old, dry root, and the rem- ould suffer in the estimation of the sion.

s perfectly useless to say that one an make a preparation as good as er. Any man who stops to think a nt knows that this is not so. The way to have a thing standard is to its manufacture in the hands of who made a success of it, who have nowledge, experience, skill, pride, ions, to guide them in their work.

you suppose that miscellaneous y is as good as that of a man who s his name a guarantee of quality? u not know that miscellaneous whis- often contain wood alcohol? Miscel- usly-made drugs would be open to me objection.

ays from every possible standpoint courage the manufacturing chemist is willing to devote his time and to making and introducing a few lass remedies. It pays in regard ugs and foods and wearing apparel. e does it not pay in an age where a trade-mark represents special excellence and advanced ideas?

If you buy woolen underwear which has the maker's name on it you know it does not contain any cotton. The man can not afford to jeopardize his reputation. If you buy one of McBeth's lamp chimneys it is almost impossible to break it. If you buy Armour's breakfast bacon every slice has the same crispness and delicate flavor. If you buy oranges packed under one label every orange is exactly alike.

Communism is always retrogressive. The only way to establish reliable standards, to enable the consumer to "get his money's worth," is by specializing.

No doctor is going to be scared out of using a remedy which has been on the market for years, and which he has used hundreds of times with good results, merely because it is not endorsed by the A. M. A. The doctor can see for himself that it would be folly for the manufacturer to reveal his process for the benefit of the makers of spurious imitations and to the detriment of the remedy.

It is absurd and futile to ask a man to give away his property for any reason. No sane man would listen to such a demand. A remedy must stand on its merits anyhow, not on the endorsement of anybody.

This meddling interference with other people's business has gone far enough. It has neither reason nor justification. It is un-American and intolerable.

The American medical profession does not want to be drilled and schooled to all think and act alike. English and American doctors are the best in the world, have made practically all the progress, just because they dare to differ, to question, and to think for themselves.

Feeding Children.

Do not forget that the baby outgrows his food, just as he does his clothes, and that timely additions to his dietary are a valuable means of preventing scurvy, rachitis, diarrheal disturbances and other diseases of dietetic origin.

Many children are peevish and ill-tempered because they are improperly nourished. A revision of the diet, with suita-

ble additions, will satisfy the child and transform it into a happy, crowing youngster. A healthy child has an instinct for sweets and this should be gratified in moderation. Honey is one of the best of sweets, or a little good butter scotch, or sweet chocolate, may be used.

It is better to overfeed than to underfeed a growing child. Over-feeding is less apt to occur with a properly selected diet, for the child will be satisfied with a lesser bulk of food. It is not a good plan to feed children on thin soups and similar fluid foods, as they are filled before the demand for nourishment is satisfied.

Children often eat too much meat, resulting in abnormal stimulation of the nervous system and imperfect nutrition of the bony and muscular framework of the body. This is often a cause of bed-wetting. Cereals, potatoes, whole-meal bread, milk, eggs, cheese, the pulses, nuts, green vegetables and salads furnish the elements of growth and repair in a satisfactory form.

When children lose appetite, instead of pampering them with injudicious indulgences, try feeding them nothing but fruit for a day or so, when appetite will quickly reassert itself unless some disease is incubating.

Children who are properly fed will suffer little, as a rule, from toothache, headache, nerves, broken sleep, etc. Proper ventilation, daily outdoor exercise and regular meal times are all essential to appetite and good digestion.

It Is Too Bad.

The doctor occupies an unique position. He lays down rules for the betterment of other people, but can not keep them himself.

For illustration, the doctor knows better than anybody else that hurry is bad for a man. When the business man calls him in and describes his mental agitation, difficulty in sleeping, irregular heart action, indigestion, and so on, the doctor tells him he must cultivate placidity, never be in a hurry, take his time about eating, etc. Then all of a sudden an anxious look gathers on his face, he hurriedly glances at his watch, says, "Well, I have no time to lose, there are a lot of patients waiting at my office," and off he rushes. Ten to one, if he gets any mid-day meal at all, it is bolted at a rate that would make the business man burst with envy.

If you remonstrate with him, he will say, "But I must look after my patients. They depend upon me." No; he hasn't time to take care of himself, the good doctor, he is always busy looking after other people, but he has to take time to die long before the natural expiration of his period of usefulness, and if anybody deserves to visit those "glory-gilded banks of Paradise" we are told about, it is the self-sacrificing doctor, who is always in a hurry ministering to the needs of others.

If he reads this he will feel as though he had been stealing sheep, for he is as modest as he is good, and takes it as a matter of course that he should devote his life and powers to a service which is often thankless and ill-paid.

The doctor's generosity is matchless and his sense of benevolence is often his own undoing.

Not long since we dropped into a friend's office and overheard him saying: "But, my dear madam, why did you not have the prescription filled?" And saw him slip a half dollar into the patient's hand as she murmured some response, and say, "Have it filled at once. It is important to lose no more time."

When we hear the preacher talking about going to heaven, we always think, "What a mustering ground for doctors," for if any one goes, they are sure to be there in force.

[Written for the MEDICAL BRIEF.]

Reminiscent Chats.

BY OLD DOC.

Hello, boys, fine weather. Seems like old Sol is going to make up for all he didn't do last winter. Wonderful how pains and aches do disappear in the sunshine. Beats all the anodynes man has ever discovered.

Say, boys, I want to give you a pointer in the preparation of vegetable foods. Most folks boil 'em in considerable water, which is then thrown away. This water contains many of the salts, extrac-

tter and so on, which are good for ent. A better plan is to cook the les by steam. Put them in a , perforated vessel, with a top to set it over a saucepan containing water. The vegetables will be equally done, they will have more nd retain all the principles so val- o the system. Potatoes should be l or baked with their jackets on.

e I am on the subject of food, say that bread made from the wheat kernel should be eaten at alf the time and by growing chil- l the time.

t contains, as you all know, pot- ne, soda, magnesia, phosphoric and ic acids, chlorine, etc. These sub- , so important and necessary, are principally in the outer envelope of nel, and hence are not present in lour. Undoubtedly, the bony frame- f the body and the dentine would nger and denser if furnished with ht kind of nourishment and in suf- quantity.

her thing I might say, and that is ay expect patients to go on suffer- m anemia, no matter how much u dope out to them, if they do not ugh proteid food. Meat, milk, eggs, re the blood-makers. Also, they ave water good and plenty. Fruit s even better than water in some in fact, it is organic water.

ice the Editor is having a good bit about the importance of diet, prep- of foods and so on these days, l of which I heartily agree. Ac- ly, I will quote an old and valued or making bran jelly, which is fine nerves.

two cupfuls of water to one of lace in a jar, cover and set in a ven for four or five hours. Press uid through a sieve, add sugar and juice and set away in a cool place e night. Next morning the jelly ready for use.

boys, don't overlook the value of nux vomica as a setting-up remedy summer time. The vomiting, purg- d weakness which comes from sen- and relaxed states of the digestive ield very nicely to nux.

A reliable fluid preparation of scutellaria has a direct controlling influence over the centers of brain and spine, lessening irritation and improving their nutrition. Whenever nervousness accompanies and perpetuates ill-health, patients improve on scutellaria.

Say, you'll find pulsatilla first-rate collateral treatment in sexual diseases where the mind is apprehensive, the patients exaggerating all symptoms, fearing this, that or the other.

When in doubt whether you shall give podophyllin or calomel, remember that if the stools are dark podophyllin is indicated; if pale, calomel will give better results.

Say, tincture of myrrh is a fine local application in chronic pharyngitis when the parts are pale and relaxed, uvula elongated, tonsils enlarged and spongy, gums soft and ulcerated.

Sulphite of magnesia acts better than the soda salt in patients suffering from a zymotic poison in the blood, if the tongue is a dark red or covered with brown fur. Where the soda salt is indicated the tongue is always broad, pale and has a pasty white coat on it.

Say, boys, you will get fine results from macrotys in neuralgia of a rheumatic character.

Give xanthoxylum a try when the mucous membranes are constantly oozing from weakness and relaxation.

Say, try a reliable extract of witch-hazel as a local application to relieve burning and itching eruptions.

For chronic weakness of the bowel in babies, try boiling the root of geranium maculatum in the milk. Use one or two roots to each pint of milk. It has no taste and acts fine. Try it, boys.

Wry-neck is a painful affection. Strips of belladonna plaster applied over the affected muscles will sometimes give prompt relief. Gelsemium internally will help you out if there is no depression.

Many persons complain that iron gives them headaches. In such cases change the preparation, reduce the dose and keep the bowels open. Sufferers from gout and rheumatism often can not take medicinal iron and you will have to trust to their getting enough from fruits and vegeta-

bles. Arrange the diet with this end in view.

Another point. Salts of iron cause a teasing of the bladder in some persons, and they may result in enuresis in the case of children.

Say, boys, you'll get much better results from ointments, as a rule, if you use a cream made from almond oil stiffened with a little wax, instead of lard, as a base. Suet may also be tried out and used with the oil. I find either of these preferable to lard or vaseline.

Don't forget the value of stillingia and preparations containing stillingia, in syphilides.

Well, so long until next time.

[Written for the MEDICAL BRIEF.]

Cerebro Spinal Meningitis.

BY ANNIE K. BAILEY, M. D.,
Danbury, Conn.

Cerebro spinal meningitis, or spotted fever, is caused by "a change in the constitution of the blood," or "deterioration of the blood caused by a gradual accumulation of nitrogenous waste products therein," which poison acts as a severe irritant upon the sympathetic nervous system, or by diminishing the action of the vaso-motor center, and through vascular innervation of the capillaries, causing the characteristic hemorrhagic spots. On this ground the treatment from the beginning should consist of ten grains of potassium acetate and five minims of fluid extract hyoscyam. in a tumblerful of water every three hours, until three or four doses are taken, the virtue of potassium being the excretion of effete matter, hyoscyamus acting beneficially on the vaso-motor fibers of the sympathetic system and efficacious where great motor excitement or spasms is threatened. In the intervals give tincture of the green root of gelsemium as the most important remedy for congestion of the brain, spinal cord, inflammation of the meninges and averting spasms. Use ten drops in half glass of water; of this one teaspoonful every fifteen minutes, half hour or hour, according to severity. Also give arsenic (Fowler's solution) at least one minim three times a day, its specific virtue being to maintain the normal standard of the undamaged red corpuscles. Gentlemen of the profession, give this treatment a trial and report results through the columns of the BRIEF.

The deterioration of the blood, which is an essential factor in spotted fever, is also caused by a solution of the red corpuscles which manifests itself in the hemorrhagic spots and is due, in a proportion of cases, to the pernicious effects of coal tar products, in no sense medicines, especially acetanilid, phenacetin, trional, etc., the toxic substance acting not only on the blood, but the nervous system. The disease in truth expresses "the *reaction* of the organism, not the *action* of the so-called germ." I am convinced the cause is within and not by any means essentially without, and investigation should be made on these lines. The germ theory on all occasions is a fallacy, The true cause lies in another direction.

[Written for the MEDICAL BRIEF.]

Syphilis.

BY GEO. O. HUGHES, M. D., M. R. C. S. AND L. R. C. P. (ENG.),
Winnipeg, Manitoba, Canada.

In reading your paper of January, 1905, page 90, I notice a question by an Oklahoma correspondent *re* syphilis.

Having specially studied that subject at Vienna, I should like to call attention to Professor Finger's views. He considers that soft chancre is generally complicated by an "Hunterian."

It would not be wise to pronounce the patient free from the disease, because of the absence of syphilitic symptoms for six months, as they are often absent for a longer period in those who live a healthy out-of-door life, but appear later in life. Besides, many medical men, when in doubt, give intermittent treatment, which also prevents the development of definite signs.

Still if all symptoms are absent for a year, and no treatment having been given during that time, you are justified in giving the patient the benefit of the doubt.

MEDICAL BRIEF

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[Written for the MEDICAL BRIEF.]

Incipient Insanity.

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[No. 1.]

In hospital and in private practice, f incipient insanity are frequently ith, and as frequently the signifi- of the symptoms presented fails to be recognized. It is in the early stages of insanity that the greatest difficulty is observed in detecting departures from the normal which may constitute unsoundness of mind. Nor is this to be wondered at, for the practitioner has probably had no knowledge of the individual in his normal state of health, and has therefore no means of comparing his altered (morbid) condition with his natural healthy self.

There may be alteration in manner, changes in likes and dislikes, warped affection, nay, even positive delusions may exist, and yet the abnormal mental state may pass unrecognized, and the complaints of the patient himself (if indeed he makes any), that he suffers from restlessness, giddiness, inability to sleep or to work, be accounted for as the result of some gastric, hepatic or other disturbance of the system.

It is only by a careful cross-examination, and by pushing our inquiries into the statements of our patients back to their "first cause," that we begin to find his conclusions are erroneous and based upon imaginary ideas.

Conditions of Excitement.—Take, for instance, the incipient stage of general paralysis of the insane. The patient is bright, cheerful happy and contented; he looks well, and tells you there is nothing whatever the matter with him, and that he only comes to consult you because his friends are under the delusion there is something wrong with him. He is coherent, plausible, and converses readily upon general subjects, and will discuss with you, even brilliantly, the topics of the day. His memory is good, and he takes a sanguine view (though not excessively so) of himself and his surroundings. As presented to you, you can discover nothing to account for the alarm of his friends as far as his mental condition is concerned. Then you subject him to a physical examination. You find one pupil is larger than the other; there is a variation from the normal in his knee-jerks, one perhaps a little plus, and the other scarcely obtainable; there is a slight tremor of his facial muscles when contracted, and, if there is an early development of ataxic symptoms, he does not stand steadily with his eyes closed when his feet are placed together; that, al-

though he is positive as to his healthy condition, he has not been able of late to take such continuous and extended exercise as formerly; that in business matters there have been found errors in arithmetical calculations, and in estimating the lapse of time, so that his employers have had reason to complain to his friends of his remissness, which has been put down to other causes.

When you cross-question his friends they will tell you he is "far too well;" that he thinks he can do things which he formerly would not dream of attempting; that he estimates his income and social position too highly, and that he has been buying things of late for which he had no real need. He has been noticed to be irregular in his habits, whereas formerly he was most punctual and methodical; he has latterly been staying out at nights, and not rising so regularly in the mornings. There has been nothing really to complain of in that respect, but *for him* the change in his habits has been most marked.

The general symptoms are all trifling, but they are many, and when taken together with the objective symptoms above mentioned, they point to a grave condition, especially if there is—as there will in all probability be—a history of syphilis. I have briefly outlined the earlier symptoms of a case of general paralysis of the insane because they are of importance to the physician in that they require most careful attention to help him to arrive at a true estimate of the ultimate progress of the case. It is true that in many cases of mental unsoundness a condition closely resembling early general paralysis is to be found, and I have therefore sketched out the groundwork of a case of early general paralysis, so that it may form a basis upon which a differential diagnosis may be formed. And here arises a difficulty. In most cases of Incipent mania the symptoms run in the same line; there is a condition of mental exaltation, a feeling of *bien-être*, and a tendency to take a rosy view of life, and yet this may not be general paralysis, but a transient phase of incipent mania. So, again, in the early symptoms of alcoholic insanity we trace a likeness to the early general paralysis, the restlessness, the exalted notions, the anxiety to be at business, which can only be undertaken with innumerable errors and mistakes.

A careful investigation into his previous history and the history of his family will help to elucidate matters. If the mental condition of his parents or near relatives has been such that a hereditary taint can be clearly traced, and if the physical symptoms are not in keeping with those enumerated above, and if there is no specific history, there will be reason to hope for an attack which will probably end in temporary recovery. If, however, the physical symptoms are present with a specific history, then the case will be in all probability one of incipient general paralysis.

Treatment.—This will be medicinal and moral. The purely medical treatment will be to restrain excitement, to procure sleep, and, if there is a specific history, antisyphilitic. The latter if of the greatest importance. Wherever a history of syphilis is obtained, the first indication will be to check the progress of the disease in the cerebral arteries. In a series of cases of general paralysis where *post-mortems* were made by Dr. Mott, the pathologist to the asylums of the London County Council, he found a diseased condition of the cerebral arteries even in most recent cases. This condition he calls "whipcord-like." It is important, therefore, that our treatment should be directed towards minimizing the tendency to this specific endarteritis. Iodide of postassium with liquor hydrargyri perchloride should be pushed until the physiological action of mercury is procured, and the iodide gradually increased as it can be borne. If there is restlessness and the excitement is marked, bromide of potassium can be added with benefit. In all cases, whether a specific history maintains or not, the indication will be to keep up the general health by nutritious non-stimulating diet and a careful attention to the natural functions of the body. The *moral treatment* will be plenty of exercise in the open air short of overfatigue, with light and amusing occupation. Removal from home and relatives under the care of some person experienced in the management and treatment of such cases will be followed by

ıt results. Change of scene and ıdings in all cases being of the t importance, a visit to friends in ıntry and giving up all mental or a time may be adopted among orer patients who can not afford ury of trained expert supervision. e means an impending attack may ded off and a return of the mental ium procured.

. INSTABILITY IN EARLY ADULT LIFE.

l now deal with another class of hich taxes to the utmost the skill sources of the physician and the e, forbearance, tact, and attention friends. I allude to those cases of ıt mental disorder occurring in women up to thirty or thirty-five f age. The subjects of this special disorder are usually of a highly c type, and their family history a strong predisposition to mental

They exhibit, but, of course, in r degree, the want of self-control, regard for the feelings of others, as of self-importance, and the un-ıbleness of the more advanced cases of certifiable insanity which scribed in the text-books. They owever, a considerable percentage o-called borderland cases—cases in lteration in manner, waywardness, veness, impatience of control, in-n towards excess, violent emo-lisplays, and the many phases and s of the hysteric, are strongly in e, yet withal, remaining, be it by little, on the sane side of the fying certification, and being, as what I venture to term sensibly

They are perfectly coherent, and m delusions or hallucinations, but treme views of things in general themselves and their surroundings cular. In a large number of these here is considerable disturbance of ual functions, many of them being ed masturbators, so that their con-ıd conversation have generally a y to revolve round the sexual of things, often to the verge of in-, despite the controlling influence presence and watchful surveillance ds and relatives.

ıer feature in these cases is want confidence; the patient can not make up her mind to do any definite thing. She will even become engaged to be married, and after a few weeks will break off her engagement without any sufficient cause, probably giving as a reason that she is afraid she did wrong, or she thinks herself unfit to marry, or to undertake household management. Then she regrets, and if opportunity occurs she will become engaged again, only to revive mental uncertainties and to bring on other regrets. These patients are frequently the subjects of disordered sensations, and complain of tingling, startings, pains and numbness, etc., in different parts of the body.

A case illustrating the eroticism in these patients is that of a young lady of high family, twenty-eight years of age, who was brought to me in a great state of excitement. She was in charge of an asylum-trained medical nurse, whose power of moral control over the patient was excellent. She was voluble, talking rapidly, but coherently and well; expressed herself as anxious to be off abroad and to be doing something; takes up various occupations, and soon tiring of them, she tries others. She is restless at night and her companion reports that she masturbates frequently and that she seems to have the idea that every man she meets is in love with her, though when I questioned her upon the subject she made guarded irrelevant replies, and would not commit herself. This was her second attack, and other members of the family have been under care. In three months she recovered, and eventually married.

Another good example of these borderland cases is that of a lady thirty-five years of age, sent to me from the north of England. Her illness was said to have been first noticed by her family six years ago, when, traveling in a train, the feeling came over her that she could not sit still, and that she must scream. She vainly tried to stop the train, and the feeling gradually passed off. Since then she has had five or six similar attacks, the most severe being a fortnight before I saw her, when she awakened out of her sleep at 2:30 A. M. with the thought that she was going out of her mind. She jumped out of bed, and rushed about the

room in dire alarm. A sleeping draught, however, brought temporary relief, but all the next day she was in a state of intense excitement, and could not help thinking she was going out of her mind. Her doctor says: "She has been engaged to be married twice, and has behaved very strangely, not knowing her mind many days together, and has on each occasion broken her engagement off. She is now engaged for the third time, and is just as changeable." The family history on both sides is bad, and she has a sister in an asylum. The patient was perfectly calm and collected when she came to me. She was accompanied by a hospital nurse, and she gave a clear and concise statement of her thoughts and sensations. Beyond the fact that both knee-jerks were exaggerated, and that the pupils were somewhat dilated (though they were equal and acted to light and accommodation), a careful physical examination revealed nothing abnormal. The prognosis in this case is favorable.

A prominent feature in these cases is *agoraphobia*, a dread of being in a large or open place, or a large space filled with people, such, for instance, as a church or theater. The fear becomes so overwhelming that the patient must rush out of the place. In one case where the patient could not get out of church, she jumped up and screamed at the pitch of her voice, alarming the congregation and creating the utmost confusion. She said she felt as though she was going to die, and must get out. This patient had also an extreme dread of traveling by the railway, because the fear that she could not get out of the carriage if anything went wrong was so great. On one occasion she actually stopped the train, got out, and sat down on the railway embankment, allowing the train to proceed without her, and she ultimately drove by road to her destination. On another occasion, when staying in town, she dare not leave to travel home with her sister, and I had ultimately to take her down myself, accompanied by her sister and lady companion. She recovered, and is now married.

I think it well to give one more instance of this distressing mental condition, and it is peculiarly distressing, more especially to the patients themselves, who are, as a rule, exceedingly bright, intelligent, clever and attractive in all other respects; but they themselves recognize the mental disorder without seeming to have the power to correct it. In the case I am about to mention, the want of self-control, the irritability induced by actions that are admittedly strange and unaccountable, and uncontrollable, the vain regrets, and vacillations, are well marked. The case is that of a lady of twenty-five years of age, the elder of two children. The home surroundings were bad, and the father died a confirmed dipsomaniac. Her illness seems to date from the age of sixteen; she was then studying hard, but from "overwork" her memory became uncertain, so that she could not remember what she read. During the last year or two her memory greatly improved, but she became abnormally quick and sensitive in temper and disposition, developing at times into extreme irritability. She suffered from facial neuralgia and insomnia. The general health was weak, she was poorly nourished and she suffered much from constipation and dysmenorrhea. After a time, under the exhibition of aloes and iron, and cod-liver oil and malt, the general health improved, and she wrote out for me a list of her mental weaknesses, which I can not do better than quote verbatim. She complains of: "(1) Fear of distance; (2) of *losing sight* of persons or things, whether animate or inanimate; (3) fear of being too late as to trifles; (4) fear of forgetting anything; (5) a feeling that I may do something dreadful suddenly, and must have those around me capable of exercising control; (6) a morbid persistency in calculating everything I see, hear, or do; (7) a horror of strangers, and sometimes of friends; (8) a dread of being shut up in a room (congenital). Nos. 2 and 8 are the most distressing. I suffer at times from neuralgia, and have still a tendency to insomnia. Besides being in a highly nervous and irritable state, all the senses seem painfully acute."

Such is her own account of her mental condition. The fear of losing sight of persons was extremely acute. She would stand looking out of the window, and when she saw anyone passing she said it made her feel extremely unhappy when

r became lost to sight. The feeling of appiness at the loss of the sight of gs made her disinclined to eat her l, she says; the feeling seems to be ering over her, and she says she "can get rid of it." Again, the morbid per-ence in calculating also interferes with eating. She can not swallow a mouth-of food at times until she has done e arithmetical calculation. The dread eing shut up in a room (*claustropho-*), which she describes as one of the st distressing of her symptoms, is, she s, a congenital condition; she has had ll her life. This patient came to me the time I was conducting investiga-as into the phenomena of hypnotism a member of the committee of investi-ion of the British Medical Association; ypnotized her frequently, and there be no doubt as to the benefit she de-ed from hypnotic suggestion, which terially aided in the ultimate improve-nt in her condition. This lady is now rried, and a mother. In her account of mental troubles she omitted one ich at times caused her considerable noyance; she suffered from obsession, ., she was a slave of imperative ideas. walking along the street she would ry now and then feel impelled to step on the markings upon the pavement, l if she missed one she would endeavor pop back unobserved, put her foot upon and go on again contented. This is a ch more common condition in cases of ntal disorder than is generally sup-ed, but it must be recognized to be re an idiosyncrasy than evidence of ease.

With regard to *causation*, hereditary disposition to nervous and mental in-bility naturally plays the most impor-t part, and hinging upon it is the fective training of the young mind. e neurotic parents beget neurotic chil-en, and they are brought up on neurotic es. Can we wonder, therefore, that as manhood dawns we find the ability to vern conduct is defective, that the will uneducated, and that mental and physi-l control are wanting? It requires no ecial knowledge to foretell the future the "spoilt child," the neurotic off-ring of the neurotic; the wards of our natic asylums are crowded with them. The education of the will is of vital importance in the training of the young, and it is the mature judgment resulting from it that builds up the restraining influence upon actions and impulses which will forego immediate gratification for ultimate good.

Treatment.—It will be readily gathered that if early defective education and surroundings, which have had such a serious effect upon the formation of the youthful character, are allowed to continue, the morbid manifestations will become more and more pronounced as time goes on; and if the ages of puberty and adolescence are struggled through, it will only be to leave the unhappy subject on the borderland of lunacy. Our first care will, therefore, be to advise the removal of the patient from home surroundings and influences into a healthy mental atmosphere, such as will be afforded by placing the patient in the family of a medical man, where unconsciously the regularity and discipline of a well-ordered household will have the effect of bringing into play the mental inhibition so long neglected, and where, under the watchful eye of the practitioner, the general health of the patient will receive careful attention. Bad habits will thus be checked and controlled, and in the bright and cheerful companionship of well-regulated minds healthy mental action will be encouraged and promoted. This procedure is, however, necessarily a question of considerable expense. Should, therefore, the means of the patient's friends be unable to provide the necessary funds, there is a second course open to us; for there are ladies, well trained and experienced, who provide homes for such cases, and devote themselves to their care and treatment. There are many of them scattered about the country doing excellent work in this way, and for those cases where bad habits and erotic tendencies are marked they are in every way excellent. Should either of these plans for some reason or another be impracticable, we have still a third alternative, which answers well in certain cases, viz., to send our patient from home in the care of a trained mental nurse or companion. They can travel about from place to place, living in apartments or hotels, and so obtain varying change of

scene and surroundings, as the nature of the case may require. Among our poorer patients, one recommends, *faute de mieux*, a visit to friends or relatives at a distance, where our medical treatment can be carried out with better prospect of success.

With regard to special treatment, it must be hygienic as well as medicinal. While correcting the general health, our aim must be to allay prominent symptoms, and at the same time remove the special causes which underlie them. For *insomnia*, regular exercise, short of fatigue, and living as much as possible in the open air by day, with cold baths for sthenic cases and tepid for the neurasthenic, will greatly help us, and above all things congenial physical occupation and rational amusement, such as games of all kinds suitable to the physique of the patient, are to be encouraged. Should want of sleep continue, sulphonal or trional will be found, as a rule, to act well; and if there is early morning restlessness, say at three or four o'clock, a cup of milk or beef tea with a biscuit taken on awakening will often be followed by quiet and refreshing sleep. Where excitement runs high, it can generally be controlled by the judicious exhibition of bromide, say bromide of ammonium in doses of from ten to thirty grains, according to the condition of the patient, always commencing with the smaller dose—this, together with three to five minims of liquor arsenicalis to prevent the skin being disfigured by bromide rash. Tinct. nucis vomica, five minims, with sp. chloroform, fifteen minims, as a stimulating tonic, and aq. cinnamomi, ad one drachm. This combination will steady the nerve centers, while improving the general tone of the system. For the relief of pains of a neuralgic character, phenacetin, four grains, and caffeine citrate, one grain, in the form of a pill or tablet, will give great relief, and at the same time will calm, without depressing. Two tablets will usually be found sufficient but if the pain is not relieved, they can be repeated.

In erotic cases where the patient practices self-abuse, I have found the addition of liquid extract of salix nigra in half-drachm or drachm doses to the bromide mixture of great benefit, but all medical treatment *must* be backed up by constant supervision by night as well as by day, and in pronounced cases I always have a nurse on duty all night as well as the day nurse, for it is at night the greatest care is necessary to check the vicious habit; our efforts will be in vain if we neglect this, the most important of all points in our treatment.

In conclusion, I would sound a note of warning. These patients, as a rule, are brought to the doctor when their bad habits have long been confirmed, and it is not until the family is threatened with some scandal that their eyes are opened to the fact that they have been allowing the mental condition of the patient to run riot for years unrecognized, and the physician must therefore be on his guard against expressing too hastily an opinion either as to the duration of the disorder or to the ultimate recovery of the patient.

[Written for the MEDICAL BRIEF.]

Suicide.

BY SILAS HUBBARD, M. D.,

Graduate Castleton Medical College, Castleton, Vt., 1842; Physician and Secretary to Buffalo City Dispensary, 1850 to 1855; Member of the Buffalo City Medical Society, 1842 to 1855; Vice-President 1852 to 1854, and Delegate to the American Medical Association, 1852; Member Erie Medical Society, 1842 to 1855; Member McLean County (Illinois) Medical Society, 1855 to 1880. East Aurora, N. Y.

Many are the motives for suicide—loss of property, loss of friends, disgrace, poverty, treachery of friends, disappointment in love affairs, ill-health, despondency, etc., etc.

Zeno, an ancient philosopher, advocated the right of a man to kill himself. Robert Ingersoll did the same thing. The Japanese are taught to do the same thing under very straitened circumstances, and very many of them have done so rather than fall into the hands of the Russians as prisoners.

The Hindoos have long considered it a merit to commit suicide from religious motives.

The American Indian commits suicide frequently. The negro rarely. The German and German descendants frequently commit suicide. The Irish less. The

lans and Hebrews much less. The
e Americans much less than any of
, except *race suicide.*
at men desire to do, they satisfy
conscience is right. Nearly all the
les that have been committed, the
es have satisfied their conscience that
s right.
is very true that very many suicides
from insanity, but the greater por-
are by rational beings. Poverty is
at cause of suicide, but even million-
occasionally commit suicide.
e brachycephalic races and people
it suicide oftener than the dolicho-
lic, *e. g.*, the Mongolians, Germans
American Indians are generally
ycephalic.
e negro, English and native Ameri-
and Russians and Hebrews are gen-
dolichocephalic, and do not commit
le as often as the first named, all of
I will not now stop to explain. I
merely say that the dolichocephalic
is not by nature as selfish as the
ycephalic man.
ere is a species of suicide prompted
e same feelings, reasons and motives
e ordinary so-called suicide, viz., dis-
ion on alcoholics and drugs; which
frequently ends up in violent, sudden
le.
evention of Suicide.—To make a
er use of the religion of Christ is
est way to prevent suicide. To have
ur motives dictated by His will and
ation and example, would surely pre-
suicide.
stream can not rise higher than its
ce, and the trouble with men gener-
is they never try to rise higher than
selves. If they love Christ su-
ely then will they obey His com-
ds, but if they love self supremely
rely on self supremely, then when the
hour comes they are tempted to sui-
to get out of trouble.
ny more men commit suicide than
en; men are oftener brachycephalic
women. Women are much oftener
hocephalic than men. Men being
selfish than women, is one cause of
suiciding oftener.
a person loves Christ supremely his
t never breaks for what man can do
im. The early disciples never committed suicide (excepting Judas, the traitor), notwithstanding they were beaten, imprisoned, tortured and slain.

The greatest following of any religionist is Buddha, but his disciples frequently commit suicide and were encouraged by their master to do so.

Socrates, four hundred years before Christ, was judicially slain because he worked out a religion which resembled the religion of Christ. He was afflicted very much by his wife, Xanthippe, but he was above temptation to commit suicide; but in these days very many husbands and wives commit suicide because they either imagine or realize that their companions prove treacherous to them, but the profession of the true religion of Christ would save them from suicide under all circumstances, however trying.

Those who are tempted to commit suicide are generally very dangerous to others, for they generally are also tempted to kill others, and very many men and women who kill their companions also kill themselves, and those who manifest suicidal tendencies ought to be kept under restraint, because no one can tell when they may kill others, or themselves.

The suicide generally is too lazy to work and too cowardly to live.

Many commit suicide because they are old, or helpless, and believe or imagine that those on whom they depend desire their decease; but the best philosophy of such unfortunates is to believe that a man can not die until his time comes; therefore, as long as he lives it is the will of God he should live, and all those who wish him dead are wishing contrary to the will of God; therefore, he will obey the will of God by contenting himself to live as long as God wills.

Scripture says, "No murderer shall enter the kingdom of heaven." Suicides are murderers; therefore, no suicide shall enter the kingdom of heaven. I will add, unless he repents before the last breath.

411 Oakwood Avenue.

Enclosed find one dollar, my subscription to the BRIEF for 1905. The BRIEF is my constant counsellor. Do not forget to insert Old Uncle Doc's letter; it is always full of good, juicy practice.—C. J. WALTON, M. D., Munfordville, Ky.

[Written for the MEDICAL BRIEF.]

The Principles and Practice of Embalming the Dead.

BY JOHN GEORGE GARSON, M. D. (EDIN.),

Vice-President of the Anthropological Institution of Great Britain; Honorary Corresponding Member of the Anthropological Societies of Paris, Moscow and Rome; Adviser on Identification to the Home Office; Late Swiney Lecturer to the British Museum, and Lecturer on Comparative Anatomy at the Charing Cross Hospital. London, England.

[No. 2.]

The composition of the preservative solution to be used will to a considerable extent depend upon the circumstances under which the operation is performed and the chemicals which are available as well as on the predilections of the operator. In every case, however, it should be sufficient in quantity and energetic enough in its direct action on the tissues to prevent putrefaction of the body for the period required, whether that be short or long, and at the same time it must be sufficiently fluid to pass into the minute blood vessels and to percolate through the walls of capillaries into the surrounding tissues till they are thoroughly permeated by it. On the other hand it must neither be too strong nor of such a nature as to cause immediate hardening and contraction of the walls of the blood vessels during its passage through them, otherwise imperfect preservation of the body will be the result. As the presence of water in the tissues as well as a supply of free oxygen gas is essential for putrefaction, and as a body contains sufficient moisture for the spontaneous occurrence of that process, the preservative injected should likewise possess the power of attracting to itself and absorbing the watery constituents present, and by subsequent reduction cause desiccation of the tissues. The rapidity with which this latter process is to take place has generally to be regulated by the time of closure of the coffin, as it causes shrinkage of the features. Judgment and knowledge of the materials used are therefore needed, not only in selecting the proper chemicals to get the desired results, but also in determining the proportions in which they are to be mixed.

The base of the injection fluid should be a substance which will combine chemically with animal matter and confer on it the power of resisting putrefaction to a high degree; it should also absorb and fix ammoniacal gas, form insoluble compounds with azotised organic principles, and be readily soluble in the vehicle used, which must of necessity constitute the bulk of the injection. The substances which possess these properties to the fullest degree and are the most convenient to use are perhaps bichloride of mercury (corrosive sublimate), chloride of zinc, chloral and formic aldehyde, and of these the first is upon the whole the best general preservative for purposes of embalming and the least expensive. As the introduction of more water into the tissues than already exists is highly undesirable for the reason previously stated, the use of that liquid as the vehicle of the injection is to be avoided as far as possible. In alcohol we possess a fluid peculiarly well suited for the purpose, being of itself a good preservative—having a great attraction for water which is readily abstracted from animal tissues, and therefore in every way a valuable adjuvant to the base, as well as a most effective solvent and reducer, properties which it is very desirable that the injection fluid should possess. To use rectified spirit for this purpose would be unnecessarily costly when the best methylated spirit is equally efficient and quite good enough in all ordinary cases.

The composition, therefore, of a good preservative solution for the blood vessels should consist essentially of bichloride of mercury or some similarly acting salt and methylated spirit, and this solution may also be used for external application and for injection into the cavities and hollow viscera. Two grains of corrosive sublimate in each ounce of injection fluid (one part in two hundred and twenty) will be found generally to be the best strength to begin injecting the blood vessels with, but the strength of the solution should be somewhat increased during the later stages of the process, even to four grains to the ounce of fluid. The bichloride may be readily dissolved by rubbing it in a mortar with some spirit in which it is soluble to the extent of one in seven. An injection fluid composed only of the mercury salt and spirit dries and con-

cts the tissues rapidly if evaporation free. It is therefore often necessary delay this result by adding some glycer- as a corrective. The quantity of rcerine added for this purpose should exceed one-quarter of the bulk of the rit used, but in most cases much less ll suffice. The amount of preservative id required for a body will vary with size, but may be approximately stated be about two gallons, or nine litres, for adult male, and about five litres for an ult female. The formula of the injec- n fluid for an adult male will, there- re, work out as follows: Bichloride of ercury from six hundred and forty to ne hundred grains; or say from one d a half to two ounces (from forty-two fifty-seven grammes); glycerine from n to eighty ounces (from 0.25 of a litre 2.25 litres); and methylated spirit up two gallons (nine litres). This will ve some idea of the quantity of the ief ingredients which the operator will ve to provide himself with for the eration. Some more of the fluid will required for injecting into the hollow scera and into the body cavities and kewise for applying externally. If the revention of putrefaction is required ly temporarily less preservative need used. Thus in cases where putrefac- on has set in unusually early, as it metimes does in hot weather, even in ngland, or as a sequence of death from rtain diseases, less than half the above- entioned quantity of injection fluid and emicals will suffice. The result of in- ction of the blood vessels with the reservative fluid just given will be to roduce a pearly whiteness of the skin; ne expression of the countenance will, xcept in respect of color, be natural. To ive a more life-like color to the counte- ance a small quantity of some soluble ed coloring matter may be added to the njection fluid, such as rosaniline or rythrosine, but this must be done very arefully, as effects other than those de- ired may be produced.

Chloride of zinc has long been used for purposes of embalming and is an excel- ent preservative, but a much larger quan- tity of it is required than of corrosive sublimate. Hitherto it has been usual to dissolve the chloride of zinc in water and sometimes to add alcohol to the solution, but in several formulæ the latter is omitted altogether. The strength of solu- tion recommended differs widely. Thus, for a body weighing one hundred pounds Richardson used to inject five pints of a saturated solution with one pint of spirit added to it. Reeves recommends the in- jection of as much as the blood vessels will hold of a solution containing two- thirds of a part of zinc chloride to one part of distilled water, which is somewhat weaker than the liquor zinci chloridi of the British Pharmacopeia, while a third formula gives eight litres of a solution containing one part of zinc chloride in three parts of water. By the first of these formula fifteen and one-half pounds of zinc chloride are required (its solubility being ten in four parts of water) in the six pints of solution; by the second, as- suming that two gallons will be taken up by the blood vessels, thirteen and three- quarters pounds; and by the third in the eight litres there would only be six pounds. The quantity of chloride of zinc injected into the vascular system in a case of complete embalming should cer- tainly be from twelve to fifteen pounds. This should be dissolved in methylated spirit, in which it is freely soluble, and in many cases some glycerine may with advantage be added to the solution. As this injection rapidly hardens the tissues, it is well to begin with a weaker solution and gradually to strengthen it during the process.

Some authorities prefer to use a pre- servative composed of hydrate of chloral as a base. With spirit as a vehicle and adjuvant such a solution is very effective in drying and hardening the tissues and quickly produces mummification. It should be used in the proportion of one part of chloral in eight parts of injecting fluid, which may with advantage also con- tain some glycerine to prevent too rapid desiccation. From two to three pounds of chloral will be required for an adult male body. The solution first injected should not exceed ten per cent in strength, but afterwards the strength may be increased to about fifteen per cent.

The instruments and appliances re- quired for embalming are a bistoury; dis- secting forceps; an aneurysm needle; a

blunt hook; artery forceps; cannulæ of different sizes, fixing into a stopcock tube, to the other end of which a piece of india rubber tubing two yards in length is attached; a graduated bottle holding one gallon (about four litres) with a circular opening close to the base, into which is inserted a tightly-fitting rubber cork perforated by a stopcock tube to which is fixed the other end of the rubber tube, and with a moderately wide neck into which a rubber cork perforated by a metal tube fits tightly; a piece of rubber tubing to fix over the upper end of this last tube about a foot in length; a U-shaped pressure-gauge attached by rubber tubing to the stem of a T-piece, the horizontal arms of which are to be inserted into the long rubber tube at about two feet from the cannula; a double-action aspirator syringe with a somewhat curved sharp-pointed cannula of good size and at least six inches in length; a pneumatic pump; scissors; suture silk and needles; a good-sized painter's brush; a bottle containing three ounces of strong liquor ammoniæ; some narrow tape; sponges; cotton wool; bandages, and some antiseptic ointment for the operator's hands. It is also desirable to have at hand a small *post-mortem* case, as some of the instruments which it contains may be required.

The cannula which I have found to be most convenient for inserting into the artery, whether that be the abdominal aorta or the femoral, is T-shaped, consisting of a right and a left half fitting closely together down the center of the stem over which the stopcock-tube is passed to hold the two halves firmly against one another. One-half of the cannula is inserted up the artery, the other down it in the opposite direction. When the two halves are united and held together by the tube of the stopcock the injection will flow simultaneously both upwards and downwards. This obviates the necessity of introducing two cannulæ with double attachments to the rubber tube, consequently a much smaller opening in the artery is required. The size of the cannula for the abdominal aorta should be from fifteen to twenty millimetres in diameter, but for the femoral it should measure only about eight millimetres.

The apparatus described is designed so that it can be used for injecting the preservative fluid either by gravitation or by air-pressure, as the operator may decide, and he may at once change from the one method to the other at any time during the course of the operation, without interfering with any of his previous arrangements, by connecting or detaching the aspirator syringe or pneumatic pump and the rubber tube affixed to the metal tube through the cork in the neck of the bottle. The preservative solution to be used should have been previously prepared in as concentrated a form as possible, so that it only requires to be diluted with additional spirit at the time of the operation to bring it down to the strength previously indicated and so make it ready for use.

The plan of procedure having been determined and the preservative fluid to be used being ready, the operator, after seeing that he has been supplied with hot and cold water and the proper utensils such as basins and slop or toilet pails also towels etc., should proceed to lay out his instruments and to set up his apparatus and to charge it with preservative fluid; lastly, the body is to be placed on the operating table. As a preliminary to the operating, especially if rigor mortis has not quite passed off, the limbs should be gently flexed and then extended to relax the muscles. The artery is next to be exposed and opened by a vertical incision and the double cannula introduced fixed and secured by ligatures. Before fixing the tube from the reservoir to the stopcock-tube on the cannula the procedure recommended by Richardson of inserting into it the nozzle of the syringe or pneumatic pump, previously charged with ammonia vapor, and forcing some of the latter into the arteries, certainly seems to facilitate the flow of the preservative solution when its injection is begun and may with advantage be followed. The tube having been filled with fluid by turning on the tap at the base of the reservoir it is attached to the free end of the stopcock on the cannula, and the solution is permitted to enter the vascular system. If the gravitation method be adopted, the reservoir has now to be elevated till the fluid has sufficient "head' to pass into the

tem, and the pressure-gauge and index to be watched till the solution is rly exhausted, the reservoir should n be replenished with stronger solution n that first used. Should the operator pt the pneumatic method, the nozzle the pump o. syringe is inserted into tube attached to the cork in the neck the bottle or reservoir and he proceeds pump air into the latter till he sees by index that the fluid is entering the eries; this being effected he has to intain the pressure indicated by the ge by pumping air in as the quantity solution in the reservoir dimin'shes. his latter method be selected the reser- r may be placed upon a table about el with the body. In default of a ficiently high resting place being ob- nable for the reservoir to get necessary ssure required for the first method a nbination of the two methods should be ctised.

After a few litres of solution have sed into the system, if everything has ne on satisfactorily, the skin will begin present a mottled appearance, first servable in the face, which will grad- ly begin to look fuller and more life- e, and perhaps even puffy about the lids; the superficial veins of the body l become more pronounced as they come charged with blood, and as the ite mottling spreads and adjacent ches coalesce. At this stage it is de- able to examine the inferior vena cava rough the abdominal opening and to it, if distended, so as to relieve the nous engorgement and resistance. As re injection fluid passes into the sys- n the body will become quite rigid and skin white and parchment-like, unless solution contains sufficient coloring tter to give it a pinkish hue. The in- tion will gradually pass into the sys- n more slowly, although the gauge will dicate that the former pressure is being intained, and finally stop flowing, owing that the vascular system has en fully charged. The stopcocks may en be turned off for a time and the lution already introduced permitted to ffuse itself equally in the tissues. At ne end of five or six hours an attempt ay be made to introduce some more so- tion, if considered desirable, but this is not often necessary unless rigidity has not been established, which seldom happens. Meanwhile the operator proceeds to deal with the thoracic and abdominal viscera. The diaphragm should be punctured with the aspirator needle, care being taken not to injure the heart or lungs in so doing. Any gas present should be allowed to escape and some strong preservative solution should be injected. The same procedure should be adopted with the stomach, the bladder, and the intestines; the last-named will require to be punctured at two or three places. Finally, some solution should be injected into the peritoneal cavity, the nasal cavity, and the mouth. If the superficial veins are still engorged it is desirable to empty them as far as possible by rubbing them in the direction of their main trunks and to inject some solution of the first used strength into them from their distal extremities.

[Written for the MEDICAL BRIEF.]

Superiority of Liquid Medicines Over Alkaloids.

BY PITTS EDWIN HOWES, M. D.,

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Curation of disease is a problem which is constantly confronting the practitioner of medicine. Among the multitudinous duties of mankind there are none that are so complex as those which fall to the lot of the physician.

The mechanism of man is a wonderful network of complicated organs; all striving toward a common goal—the health and strength of its various tissues. While anatomy is essential to the understanding of the structure, physiology is no less important in aiding us to comprehend the action of its component parts. Physiology, then, plays a large part in the practice of the successful medical man.

It teaches us that all nutrition is supplied to the body through the medium of the blood; that this nutriment is conveyed to the blood, and the parts needing renewal, by means of endosmosis and

exosmosis; that it is necessary for this nourishing pabulum to be in a liquid state before these exchanges can take place.

Experimentation has demonstrated that liquids are much more promptly absorbed than articles of a semi-fluid, or more compact nature. Hence the first point of the superiority of liquids over the alkaloids, is the fact that they are absorbed with greater rapidity, and, thus their beneficent action is commenced more quickly.

The action of the liquids are more gentle, because, as a rule, they are less powerful than the alkaloids which are extracted, by means of chemical manipulation, from the various fluid preparations that yield the alkaloidal principles.

All who are familiar with the workings of nature know, and must admit, that the more gentle the process, the more lasting and complete is the result obtained. The constant dripping of water, drop by drop, will wear away the hardest substance over which violent measures, though more energetic in their onset, would utterly fail.

The soothing effect of liquid medication will aid materially in producing a more lasting relief, from those conditions which are the cause of the departure from the normal or healthy standard.

The liquid preparation—be it infusion, decoction, tincture or fluid extract—contains all of the plant constituents, and combines in Dame Nature's own way the various ingredients.

Plants yield their medicinal qualities to a varying proportion of water and alcohol. The practical pharmacist knows that the right proportions must be used in order to get a reliable and complete representation of the plant under treatment. Again, the plants must be used at different stages of their existence in order to obtain the most reliable results. Some must be used in the green state with all their juices; others should be partially dried and a part of their liquid substance allowed to evaporate, while still others must be in a completely dried condition.

Physicians understand very well that they get better results from the medicines of some manufactures than they do from those of others. They do not always stop to consider why this is so. It lies all in the process of manufacture. The practitioner who uses tinctures made from fluid extracts will be very apt to lose faith in medication, because of the poor results which he, many times, obtains. He charges the fault to the medicinal agent, when, in reality, the fault lies in the method of preparation. The blame should be laid at the door of the pharmacist.

The rapidity of the absorption of fluids by the blood, will prevent the cumulative action which sometimes results from the use of the alkaloids. This is a factor which should not be forgotten. Many deaths could be properly charged to this mode of action in the alkaloids.

Many time the alkaloidal principle must be placed in a fluid vehicle in order to get the best results, as, for instance, the whole method of hypodermic medication. There is no question but that the hypodermic syringe has been a blessing to mankind. But where is the practitioner who would like to treat his cases wholly with this instrument?

The alkaloids, when you have said the best you can in their favor, are, at best only a part of the original plant. We are apt to term them the active principle of the plant. How are we to demonstrate this fact absolutely? Can it be demonstrated? I think not. Who would be rash enough to assert that all of the good of cinchona lies in the quinine, or that of nux vomica in the strychnine? And not only of these two, but also of the entire list of plants which, by means of manipulation, can be caused to give up their alkaloidal principles.

Those who are at all familiar with the early history of the Eclectic School of Medicine know how nearly it came to shipwreck because of the wild enthusiasm over the idea of alkaloidal medication. Fortunately the error was discovered early and the more rational and scientific method of using the entire plant was substituted.

Without doubt there are fewer therapeutic nihilists to-day among the eclectic practitioners than any other school of medicine. It is due to the fact that they

almost exclusively the liquid medi-

o not wish to be understood that is no place for the alkaloids in the al practice, for I am willing to ad- hat there is. I do contend, however, hat place is very much smaller than of its champions would have us e.

[Written for the MEDICAL BRIEF.]

Nasal Cavities and the General Practitioner.

BY DAVID C. GAMBLE, M. D.,

l Professor of Diseases of the Ear in the cal Department of Washington University, St. Louis, Mo.

en we remember that the nasal cavi- re the source from which diseases of boring organs may arise, and that condition may even have an effect the development of the individual, mportance of a knowledge by the al practitioner of the diseases affect- hese cavities can not be over-esti- d; for it is the general practitioner irst sees many of the cases which reach the specialist, and many of onsequences of diseases of neighbor- rgans, and, indeed, the diseases elves, may be often cut short or en- averted if they receive proper care reatment at the beginning.

illustrating this point, how many of suppurative otitis media might evented if the attending physician to the nasal cavities and the post- space the attention which diseases ose parts demand. Their involve- is among the early manifestations me of the diseases which affect the chian tube and middle ear, as in es and scarlet fever. Now, suitable ment directed towards these parts frequently save the ear from attack, he patient much suffering.

ain, obstruction of these parts to the and free passage of air to the lungs to prevent the development of the themselves, and consequently the capacity, so that the individual is is called "flat chested," and his ration is by the mouth. These ob- tions may be in the form of spurs on the nasal septum, hypertrophy of the turbinal tissue or of the lymphoid tissue in the vault of the pharynx, commonly spoken of as adenoids. These obstructions not only interfere with the respiration, but by their presence increase the liability of inflammatory attacks in the parts. But it is not only where obstruction to respiration exists in the cavities, or they are involved as an accompaniment of the exanthematous diseases, that attention should be given them, but in the ordinary "cold" they should not be neglected. The physician is too apt to think lightly of these cases and be satisfied with little or no treatment of them, believing that they have a course to run and will recover without assistance.

It is true that the laity, through ignorance, does not attach much importance to them and it is only where a certain amount of fever and general malaise, or the more decided symptoms of influenza exist, that the physician is called in; but it does not justify *him* in regarding the case as of little moment, for a large number of the cases of middle ear involvement are due to what is regarded as "only a cold."

Now, what shall the physician do when called to see a case of this character? Take the ordinary "cold." The physician on examination may find the patient suffering with a discharge from the nasal cavities of a watery or muco-purulent character, and he notices that the turbinal tissue is swollen so that the patient is breathing through the mouth.

The question arises, what line of treatment shall be followed out, presuming that he will pay attention to what constitutional treatment may be demanded as in the use of laxatives, etc. Local treatment which he may follow can be of this character:

The turbinal tissue being swollen, an application of a solution of muriate of cocaine (from two to four per cent) should be made to the cavities so as to reduce the swelling in those parts. This may be done by twisting a small pledget of cotton around a carrier and dipping it in a solution, and carrying it along the floor of the nose, sweeping it upwards as it is withdrawn. This will leave sufficient of the solution in contact

with the parts to produce the desired effect. Then the swelling having been reduced, a disinfecting and detergent wash should be sprayed into the cavities (such as Dobell's solution as described in the text-books, to which may be added two or three grains of boric acid to the ounce, and a little menthol). This should be done thoroughly and if the patient be old enough to stand the introduction of instruments through the mouth into the post-nasal spaces, the spray should also be thoroughly applied there, the object being to get rid of all secretion which may have been thrown out and retained or blocked up in the cavities. After having thoroughly washed out the parts an application of some astringent should be made, which may be a weak solution of nitrate of silver, or a powder may be blown into the cavities, as the compound stearate of zinc. The objection to the use of powders is that they may increase the secretion for a moment and be washed away, but the use of an oily preparation, in which may be dissolved from five to ten grains of menthol, sprayed over the parts, and followed by the powder, seems to have the effect of retaining the latter for a longer time in contact with the parts.

This line of treatment should be faithfully carried out, being applied morning and evening if necessary, and the relief from the distressing symptoms which the patient has experienced is sometimes remarkable. The neglect of proper treatment in these cases is liable to cause a chronic condition, as a neglected cold seldom leaves the parts in as good condition as they were before.

When it comes to treatment of cases of chronic diseases there is not so much that the physician can do, for he is not usually prepared for operative procedures which may be required in these cases. If, however, he is called upon to attend a case of this character, finding a swollen condition of the turbinal tissue, he determines by the use of a solution of cocaine the fact as to whether the swelling is a true hypertrophy or not. If it disappears under the effect of the drug he may readily conclude that it is merely a chronic intumescence and not a true hypertrophy. That is, that the vessels supplying the parts are chronically enlarged, but there is little or no deposit of inflammatory materia in the tissues. Here he may be able t effect an improvement by cauterizing th part. This may be done after making a application of cocaine by twisting a fil of cotton around a steel cotton carrie and dipping it into liquid trichlor. aceti acid, or fusing some of the crystals c acid upon the end of a steel probe an carrying the acid back into the cavity being careful to avoid the nasal septun bringing it in contact with the turbina tissues and drawing it slowly forward establishing a lineal eschar. When th slough comes away and contraction take place, support is given thereby to th engorged blood vessels and they are a lowed thus to recover their tone.

When it comes to true hypertrophy c nasal spurs upon the septum surgical i terference may be necessary. These case should be referred to the specialist, wh is better prepared than a physician fo their treatment. In all these cases c nasal disease hygienic treatment shoul be carried out. The patient susceptibl to colds should acquire the habit of tal ing cold baths, not necessarily a plung bath, and in the midst of winter when th water is very cold only a sponge bat should be used. Vigorous rubbing afte the bath, so as to increase the circulatio of the skin, relieves the internal circul tion and the bath tends to harden th patient to the effect of cold. Rules shoul also be observed as to exercise, eatin drinking and the keeping of proper hour

If this article shall serve to cause th physician to give more thought and car to the nasal cavities, its object will hav been attained.

Century Building.

[Written for the MEDICAL BRIEF.]

Gynecological Hints.

BY BACHE MCE. EMMET, M. D.,
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A general notion has prevailed for som years past that the principal, if not only advance to be made in the treatment c gynecological diseases, is through su gery; and, in view of the ever-presen desire on the part of our younger aspi

become full-fledged specialists at
is field has been the more assidu-
vorked, to the prejudice of older
s. The reason is not difficult to
Surgical work implies, in a large
y of gynecological cases, the re-
of the real or supposed offending
If the patient still lives, each
ay bring a score, and the budding
doubtless thinks that his fame
with his daring; but are the rec-
ch that the profession at large may
he results and the rate of death?
ct we do well know, that operate
will, many a woman still suffers.
y, therefore, all believe that there
nains a place in gynecology for
reatment than the knife, and that
ill desirable to exhaust the safer
at our command before resorting
more alluring, but more destruc-
eroic measures.

with this in view, though mindful
benefits of surgery, and of the possi-
willingness of practitioners to lis-
iently and to accept confidently the
s set forth, that I wish to consider
time some of the useful methods
ch we can avail ourselves to alle-
uffering, to overcome disease and
life. The methods are not new,
reviving and studying afresh what
en too imperfectly tried or known,
seek to emphasize what experience
trates as useful.

sider it the more important to in-
some length upon the benefits to
ined by these methods in the treat-
of diseases of women, since it is
the province of many physicians
e competent to make a diagnosis
conditions and will exercise care
tience in their treatment to pro-
heir patients' good, with consider-
ss likelihood of danger resulting
ere they to subject them to surgi-
rations.

y physicians practicing at a great
e from large centers have not all
odern aseptic principles at their
ends, nor have they the necessary
nts or appliances at hand. The
s, on their part, often cannot af-
, and will not, leave their families
o specialists who have the reputa-
f operating upon the slightest pre-
text. It is, therefore, very desirable that general practitioners should familiarize themselves with remedial means by which they may often avert disease, or meet it in its early stage and avoid its early complications.

It has always appeared to me incumbent upon the family physician to have a more direct concern for the welfare of the young girls growing up about him than appears to be usual; to stand in the position of the family counselor and to guide their early training and development; to tell the ignorant mother of the care to bestow, of the dangers to shun; to have the young daughters taught something of their own bodies and of the simple rules of health, as well as of the consequences of neglecting them. It would be wise to induce parents throughout the country (or it might be generalized in country schools) to have classes in calisthenics, to utilize the principles of the Delsarte system and to establish drills. It would not be amiss to preach to the mothers and fathers about the young girl's dress when she is approaching puberty, the physician, with his wacthful eye, being in a position to detect the imminent injury to the body which the abuse of lacing threatens. He might interview school teachers, also. They stand the next in relation to the children, and, possibly, they know more about the girls than do their parents; to induce them to become interested in their pupils' welfare, to familiarize themselves with their habits of life, to note whether they give attention to their bowels, whether they need some caution or advice when the menses appear; to have them take note of inaptitude for study; to observe if they have headaches, etc., etc.

Following out such lines, even though the advice be not sought, those physicians occupying respected positions in communities, either as the prominent resident of the village, the member of the school board, or local health officer, may feel that they are fulfilling their highest mission, and are, in no small degree, contributing to the good of their country and to the improvement of the race.

It will be seen from the foregoing that I would make much of all the cardinal principles of health, not merely its restor-

ation when impaired, but the fitting of the body in early life to withstand the onset of disease. It would seem, therefore, to be not amiss that every physician should be advised to fit himself better than is common, to understand the rationale and the methods of developing the young girl. He should study exercise in its various forms, breathing, singing, walking, running, rowing, riding and swimming; he should look into the various forms of gymnastic and calisthenic exercises, and into the study of passive movements and massage; he should understand the merits of bathing, hot and cold, fresh and salt, short and prolonged; the various forms of douches as practiced in our several health-establishments, the qualities and purposes of our numerous mineral springs, and, further, he should not neglect to obtain some familiarity with our topography and climatology.

Many of these points are as essential to the well-being of the people intrusted to his care as are the other laws of hygiene, which we all pretend to know something about, and the result of a diffusion of such elementary knowledge would fit the family physician to be a health-guide, far beyond what the present average attainments justify him in claiming. Thus would early errors of diet, of nutrition and of growth be prevented; girls might be formed to the best advantage to withstand invading disease, when they are called upon to take their position in the world; they would become stronger mothers, better able to meet the responsibilities thrust upon them, and it is not to be doubted that the pathological history of each succeeding decade would be very materially changed, and our nosological chart much circumscribed.

18 East Thirtieth Street.

[Written for the MEDICAL BRIEF.]

Post-Nubial Outrages.

BY JAMES M. GASSAWAY, M. D.,

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If it is the province of hygiene to cure the many superstitions of the laity, in too many instances shared by the profession, as, for instance, that an egg is equivalent in nutritive value to a pound of meat; that the various mysteries sold in the drug stores as "beef extracts" are sufficient by the teaspoonful to sustain a famished invalid or convalescent for twenty-four hours, more or less, and that milk is the one grand, important, absolute and universal food for every breathing thing; if hygiene could only restrict itself to such things, it would occupy us to the very full while the world shall last, but there are many other errors almost as widespread and more fatal in their consequences. It is almost incomprehensible to the thoughtful physician why the atrocious vice of wedding tours has not been utterly stamped out. No matter how robust, how tenacious of life, how full of energy, how many times the four hundred years, which the good Dr. Holmes insists should be the time of preparation for the new-born infant; no matter what adjuncts to ease, of wealth, of education, of refinement, not one of them can stand safely the dreadful physical and mental exactions of the prolonged and, too often, deleterious excitement of the engaged.

The constant strain to keep up the somewhat unnatural "front" which has attracted and which continues to attract the betrothed, together with the six months' siege, more or less, of the most laborious exertion in the preparation of trousseau, the exactions, impositions and fatigues of the dressmaker, the same to a lesser degree of the milliner, and to crown all, the dreadful hurry and vigils which attend the few weeks immediately preceding the ceremony.

With the groom it is scarcely less exacting. Whether in business or whether of leisure and, like all the strictly leisure class, driven by the lash of necessity for amusement, his attention divided, his entire habit of life, so far as it is the formed, completely subverted, his hurried and frequently frenzied attempts to regulate his business affairs in order that he may have nothing on his hands to interfere; these combined produce a condition of the system, both mental and physical, of both the high contracting parties which peculiarly and positively unfit them for the dreadful exactions of a honeymoon trip.

ıediately upon the conclusion of the ony the youthful couple proceed he utmost dispatch to the train and begins the most tiresome episode human beings with all the varied life are subjected to. To the sensi- ıodest young woman, the mental dis- of appearing to the world in the be-concealed role of bride, is in it- ufficient, but this must be supple- d by the discomforts of that Pro- n travesty, the modern, much- ecorated sleeping car. The over- d indifference of the groom needs ntion here, as this is not intended umorous sketch. Arriving, not at destination, for their proper destina- ill probably be a sanitarium, but at y which they have chosen to honor heir *incognito*, they begin a life ısome from the very strangeness of om, of the furniture, of the sur- ngs, and the unfamiliar and too ndigestible, if not absolutely hurt- enu. This, however, does not suffice he great majority of them. Hardly hey swallowed an early breakfast they are off sightseeing and visit- very celebrity within twenty miles e city, too often in inclement er, and too often in the reaction ıt about by the months of strenu- ndeavor which have preceded the It does not suffice that they should rag themselves from post to pillar ibly enjoying these various sights anıscapes in each others' society, as Lord Allcash says in "Fra Dia- "each longs for his or her sleep all lay," well meaning, misguided s who have been apprised of their ar- visit the newly-married couple at notel in the afternoon and evening. ıt the very critical time of a woman's nen above all she needs the quiet se- ı and comfort of the home which she een accustomed to since her girl- she is exposed to a series of labori- ıental and physical efforts which well break down the strongest and robust man. Is it any wonder that edding trip is the first and most ful factor in the wretched health nany years of young American ns?

No mention is made here of the absurd vulgarities of the would-be witty, *soi-disant* friends of the couple who signalize themselves by throwing old shoes and rice, or in a spirit of gummy pleasantry paste or tie various labels and ribbons to their luggage. These things are better left to the strong arm of the law, which, it is gratifying to note, has been thrice exercised within the last month in one of our largest Eastern cities. Let us pray that we may follow in its footsteps.

[Written for the MEDICAL BRIEF.]

Pathology and Treatment of Rheumatism.

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It was the discovery of the gonococcus which first made the bacterial origin of rheumatism so probable. Though gonorrheal arthritis was recognized as early as 1781, by Selle and Swedauer, it was not until 1879 that Neisser demonstrated that it was caused by the micro-organism which goes by his name. Here, therefore, we have an infection by a specific bacterium, which begins and usually remains as a purely local inflammation of a mucous membrane, but occasionally the bacterium itself enters the blood and then attacks joint after joint in a fashion so like the rheumatic disease that it may be well to allude at the outset to the features which allow a differential diagnosis. There may be much pain and swelling by effusion into the joint cavities, and in the sheaths of the tendons, but there is little or no redness, as in acute rheumatism or gout, and the fever is remarkably less. The joints also bear more handling. The urine is not so high-colored, nor deposits so much sediment, and gonorrheal arthritis attacks some joints which rheumatism spares, as the jaw and sterno clavicular joint. It also attacks the eyes, producing secondary conjunctivitis, sclerotitis and iritis. Unlike rheumatism, it spares the heart and very rarely involves

a serous membrane. Its most dreaded sequel is a fibrous anchylosis of joints, in some cases at each successive attack of gonorrhea, one joint being locked up after the other until nothing but breaking up the adhesions under an anesthetic will set it free. That the agent of the infection circulates in the blood itself is proved by this "rheumatism" attacking infants whose eyes have been infected at birth. It is an illustration how etiology should determine therapeutics that the remedy for rheumatism, the salicylates, are useless against this different infection.

Unlike gout, rheumatism is ubiquitous, for its bacterium seems to flourish in all countries and climates. It was natural, therefore, that a great variety of different bacteria should be charged at first with being the specific agents of rheumatism. When we remember how, in diphtheria, one streptococcus after another, as well as yeast fungi, etc., were announced as the specific offender, until at last the true organism was identified in the Klebs-Loeffler bacillus, we need not expect a ready demonstration of the rheumatic agent. The latest researches, however, come as near demonstrating as could be anticipated that it is a minute streptococcus first described by Triboulet, in 1898, and then by Wasserman in 1899, and since confirmed by F. Mayer, and a number of continental bacteriologists. In England these investigations have been thoroughly followed up by Poynton, Paine and Lees, and more recently by Beaton, Walker, and Ryffel, whose results may be summarized as follows: This streptococcus, first isolated from the tonsils of patients suffering from rheumatic fever, has been found in the blood, in the exudates, in the inflamed joints, and in the vegetations of rheumatic endocarditis. Pure cultures have been obtained from all these sources, and these injected into animals, particularly guinea pigs and rabbits, have produced all of the lesions of arthritis and of endocarditis in them, characteristic of acute rheumatism in man. Poynton and Paine excised a rheumatic nodule two hours before death, which was at once immersed in a suitable medium and cultivated for forty-eight hours in an incubator, producing an exuberant growth of this micro-organism, without any other Injection from this culture caused marked choreic symptoms in a rabbit Benton and Walker (*Brit. Med. Jour.* January 31, 1903, page 237) obtained this micrococcus in pure culture from fifteen cases, eight of which were acute rheumatism, three cases of chorea and four cases of rheumatic endocarditis

As it is of importance to be sure that this is not one of the numerous varieties of streptococcus found in or on human bodies, a Marmorek's test fluid, in which no human streptococcus, so to speak, will grow, was employed, and this rheumatic streptococcus grew freely in it.

Besides its morphological characters much interest attaches to researches into the chemical changes set up by the growth of this organism, as well as its direct effect on the blood. As regards the latter point, Walker and Ryffel (*Brit. Med. Jour.*, September, 1903, p. 659) state that it produces a more rapid hemolytic effect than any other streptococcus, an observation which, if confirmed, would go far to explain the specific anemia which is so characteristic of acute rheumatism. As far back as 1858 Richardson ascribed rheumatic endocarditis to excess of lactic acid in the blood, but this view was not confirmed by other investigators Now Walker and Ryffel claim that while more than one form of streptococcus can generate formic acid in its growth, yet this kind produces much the largest amount of it than any other form, and that it is present originally in the bodies of the bacteria, and that formic acid is found abundantly in the urine of rheumatic patients and not in healthy urine The origin of this formic acid is believed by them to be the natural sareo-lactic acid of muscles.

The liability to a primary infection by rheumatism extends from childhood up to about the thirtieth year, after which it progressively declines. In all infection the question of prophylaxis is second to none in importance, but, unfortunately, as respects rheumatism this subject is unduly neglected in our text books. In diphtheria and pneumonia, a first attack appears to make a person more liable to the same infection again. In rheumatism this increased liability is particular-

sted and with each fresh attack bsequent recurrences become more it, until a chronic rheumatic con- may become established. By itself ould be bad enough, but when fur- part complications may be equally for, the question of prevention be- a very serious one. In all attempts phylaxis the first requisite after ring the specific micro-organism is to find how and where it man- gain entrance into the blood. As typhoid fever and Asiatic cholera, w that their germs must be swal- With diphtheria it is quite differ- it is at first as much a local in- as syphilis. How we catch pneu- no one knows. It will be a great hen it is found out why the pneu- us may be a permanent resident mouth without giving any trouble. at makes it then suddenly become ly by invading the blood.

the rheumatic bacteria, however, that its portal of entry is more to be identified. Reasoning from with the originally purely local n of the gonococcus, the rheumatic eed not have more than one usual f entry, and my own experience locate it as the tonsils in fully per cent of all cases. Its period of tion there I would rate as an aver- seven days from the first signs of tis, though it may be shorter. A of patients deny that their rheu- was preceded by sore throat, but inquiry will develop that they een subject to attacks of quinsy and if their throats had been sys- ally examined tonsillar engorge- would have been found as a com- not an habitual condition. This is larly noticeable in children, whose ts of themselves are generally un- e in this respect. My own plan very patient with a so-called rheu- condition is to enjoin a washing of roat twice daily, night and morn- they would wash their faces. Mere ng or spraying of the throat is of vail, because such measures fail to out the many crypts in the mucous ane, in which the infecting agent e hid. By a very little practice a gh cleansing of the entire pharyn- geal cavity may be secured by a quart of hot water, in which two teaspoonfuls of chlorate of potash, with five drops of oil of peppermint, or oil of cinnamon, have been dissolved. The patient should bend over a basin with the mouth wide open and let the stream of hot water run into the mouth from a syringe and run directly out again. No special effort should be made to direct the stream, for it will find its own way to the walls of the pharynx, past the tongue and round the tonsillar eminences. By this means I believe I have prevented many relapses of rheumatism in those who have sufficiently appreciated the importance of throat disinfection to take the trouble to add this measure to their daily toilet. I may add that I regard this the most effective measure for treating on the principle of disinfection chronic middle-ear inflammations with deafness secondary to old-standing pharyngitis.

The introduction of the salicylates for the treatment of rheumatism has many of the historic features of the introduction of Peruvian bark against malaria. But, unfortunately, there is a difference between the action of the two against their respective diseases. Quinine is an actual germicide to the ague organism which, in its young forms, at least, is soon killed, so as promptly to disappear from the blood after a proper medicinal dose. This may be due to the fact that the malarial organism or plasmodium is of animal, rather than vegetable nature. But bacteria belong to the fungi, and are so much more tenacious of life, especially if in the spore stage, that it is very doubtful if there be a single example of a bacterium germicide acting through the blood.

That the salicylates do not relieve rheumatism by destroying the streptococcus, is made evident by the specific inflammations of the disease going on the same as before. What the salicylates unquestionably have accomplished is that by their specific analgesic properties they make acute rheumatism a much less painful disease, and, therefore, in slighter cases they seem to cure the affection promptly. The earlier they are given and in full doses from the start the better, and it may be that in many such instances while the infection is comparatively local they

may cut it short. But when the blood becomes so charged with the infection that great migrations of the streptococcus take place into the structures contributory to joint cavities, this organism finds in the synovial fluid a most favorable medium for multiplication and the case then becomes one of the most vexatiously tedious in medicine. Scarcely does one joint improve before another is attacked, and for weeks the story keeps up with the patient growing progressively weaker and more anemic. In fact, the salicylates have failed in them, just as all other routine remedies, including quinine itself in many cases of chronic ague, will fail until we can vary the treatment. This may be tried first by changing the form of the salicylate itself. Then if the commonest prescribed sodium salt has been used for days, the salicylate of strontium, in fifteen-grain doses, may be substituted.

That the chief effect of the salicylates is due to their analgesic properties is illustrated by their benefiting other painful affections besides rheumatism. Thus, many muscular pains of Graves' disease are promptly relieved by the strontium salt, better than by any other form; also lumbago and the other pains of fibrositis, or so-called muscular rheumatism, and even in gout it is occasionally useful. If the rheumatism continues obstinate, it is better to omit the salicylates altogether, particularly if they disturb the stomach. Occasionally, the old-fashioned infusion of Peruvian bark seems to be better than anything else. The iodides, in my experience, are useless.

It is, however, the danger of inflammation of the heart structures which gives to the subject of the treatment of rheumatism its chief importance. Otherwise the old saying that the best prescription for it is six weeks in bed might be accepted as affording a safe, though not enlivening prospect. But permanent heart damage is a serious matter, and, instead of six weeks, it may be many years, during which the sufferer fails to recover from that visit of rheumatism, dying at last with one of the slowest and most distressing forms of illness. It is the apparently speedy, but often most deceptive relief of the joint pains by the salicylates which is responsible for so many patients leaving our hospitals, discharged "cured," but who are afterwards readmitted with mitral stenosis or other cardiac mischief. But the joint symptoms in rheumatism are really of secondary importance, compared with the danger to the heart, which in turn bears no certain relation to the degree of the arthritis. It is in children that the rheumatic involvement of the heart is most to be feared, and yet in them the arthritic symptoms may often be overlooked, because they are so slight. Chorea, also, has no joint symptoms at all; nevertheless, it is followed by endo-carditis as often as rheumatic fever itself is. Every form of this infection, therefore, is dangerous to the heart and calls for watchful attention to the heart, not only from the very first, but equally to the last, that is, for weeks after the patient leaves his bed.

A surgeon feels his responsibility when he sets a broken arm or leg, lest after a time the patient return to him with a suit for malpractice. The physician has no such fear after he has done with a case of rheumatism, but he is even more morally bound to use every possible means for preventing a lasting impairment of a much more important organ than any limb.

It is on these grounds that I would urge a return to the former treatment of acute rheumatism, because I am fully convinced that it was effective in preventing the heart from being attacked. Both Fuller and Sir A. Garrand claimed that when the alkaline plan was followed no cardiac inflammations occurred, and I believe they were right. Fuller's aim was to make the urine alkaline as quickly as possible, and to keep it so, a point on which he insisted, because, though it might be rendered alkaline in a few hours, it soon became acid again if the medication be intermitted. It is not necessary to use such a mixture of salts as Dr. Fuller presented, but I have found to answer equally well thirty grains of sodium bicarbonate, with ten of potassium bicarbonate, given well-diluted in water every two, three or four hours, according to the state of the urine, the object being to render the urine alkaline as soon as possible. As rheumatism is characterized by undue acidity of the secretions, as the

acid sweats and the urine testify, an improbable surmise that this has a causative connection with lity of the heart to inflammation, e indications for the administra- lkalines seem further confirmed formic acid has been shown to d in such amount by the infect- t. The alkaline treatment need rfere with the simultaneous ad- tion of the salicylates, and, in majority of writers at present mmending giving alkalines with se of a salicylate, to make the lat- e effective. I doubt whether they the action of the salicylates as ather the two classes of remedies ogether for the benefit of the pa- nt each in their own way, for how- eely the salicylates may be given tection of the heart is not assured urine is rendered and left neutral aline. A rheumatic carditis, pro- permanent structural changes because the great cure for a local nation—rest—is impossible. But s no reason why the physician not try to reduce the undue hurry heart movements, caused by the mation, as much as he can. It is s to me why so many practitioners nid about employing aconite. They o think it dangerous, because it is cardiac depressant. It is so only ge, poisonous doses, but otherwise it eart restorative, from its power to e cardiac pain and irritability, and ually saves the heart from exhaus- y too rapid action. I give it from ry beginning of a rheumatic fever, children for months afterwards, if art continues too fast. At the first of cardiac pain belladonna is added. never an internal organ is inflamed rves of the skin over it become very ve, especially to cold, and this in s reflected upon the vaso-motor of the inflamed viscera. If the apex ng be fastened by a small pleuritic on to the chest wall, caused by a ular deposit, laying the cold hand t part will at once cause a short when it does not if applied to und side. I have no doubt that a rditis, and for that matter, an en- itis, may be seriously aggravated by exposure of the precordium to the air when the skin is perspiring. In every case of rheumatic fever we should not wait till a murmur develops before the whole precordium is well shielded by a layer of cotton wool. And on the same principle I always direct patients with acute rheumatism to lie between blankets without sheets, for sheets wet with profuse perspiration are not only adhesive and most painful to the inflamed joints when they are moved in them, but they chill the patients, and by so doing aggravate the inflammatory process itself. The anemia consequent upon the rheumatic infection is not the least of the evils which it entails, as it becomes very serious if the attack is prolonged. The routine remedy for anemia, iron, is actually harmful in rheumatism, and it may be well to add that iron does no good in febrile anemias in general. Cod liver oil is the only agent that I know of which seems beneficial in the anemia of rheumatism. It should be given with pepsin, and persevered in until the patient is fully recovered, for it has appeared to me to end the lingering rheumatism itself in many patients who seemed to be in danger of the disease becoming indefinitely chronic with them.

23 East Forty-Seventh Street.

[Written for the MEDICAL BRIEF.]

The Newer Studies in the Diarrheas of Infancy.

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For many years no subject has been of more interest to those physicians practicing among children than the epidemic of intestinal diseases which occurs each season, especially in the large cities during the summer months. Attention was first called to these disorders among children in Revolutionary times by Dr. Benjamin Rush. He pointed out the importance when sending the patients away from the crowded districts to the country, of prompt purgation, and restricted diet. Since his time a large number of theories

have been advanced by as many adherents to account for these disorders; but no one factor or set of factors seemed to be constantly present to which the outbreak of these diseases could be ascribed.

With the advent of the study of bacteria, the summer diarrheas of infancy received much attention. Escherich pointed out that the bacterial flora of the intestinal tract was remarkably simple, and that two organisms only were found in predominant numbers. In the upper bowel, Bacillus lactis ærogenes, and in the lower bowel, Bacillus coli communis. He and Booker and many others have shown that in diarrheal conditions the intestinal flora becomes complicated and the differentiation between the forms present in the upper and lower bowel is lost. The many varieties of bacteria have been described by various writers on these disorders, but none of them seemed to be constantly present in summer diarrhea. It was thought, therefore, that these diseases were not due to the specific micro-organisms, but probably to several.

In 1901, Duval and Bassett, at The Thomas Wilson Sanitarium, working under a grant from The Rockefeller Institute for Medical Research, found in a series of over forty cases of diarrhea of various grades in infants, the dysentery bacillus discovered by Shiga in 1898 in epidemic dysentery in Japan, and since then by several observers in the Philippines, in Europe and in this country in outbreaks of sporadic dysentery. Following the report of these investigators the same organism was found in occasional cases of diarrhea occurring in children in the winter; and in two succeeding summers a systematic investigation has been carried on in the various large cities under the direction of The Rockefeller Institute for Medical Research, with the result that in a large proportion of the cases studied the dysentery organism has been found in the dejecta. It would be unnecessary to enter here into the bacteriological aspects of these studies, except to say that several strains or varieties of this organism, differing somewhat from each other in their reaction upon various sugar-culture media, and in their agglutinating action with serum, have been found. It is important to note that the organisms have been isolated in case representing all grades of infection, both in the toxic form, called gastro-intestinal intoxications, dyspeptic diarrheas, fomental diarrheas, etc., and also in those varieties of the disease in which there is evidence of inflammatory alteration in the mucosa, with ulceration; the latter class commonly known as ileo-colitis. The organisms were found in largest numbers in stools which were largely mucoid in character. Blood was present in not more than fifty per cent of the cases, and then only in small quantities. These clinical results have been verified also by the pathological findings in the fatal cases where all grades of variation have been present, from those cases in which little or no change was found in the bowel, except perhaps slight lymphoid hyperplasia to others in which there was extensive ulceration. It seems a fair deduction from these findings to assert as proved that a fairly large proportion of the cases of so-called summer diarrhea occurring in infancy are associated with some variety of the dysentery bacillus. There are many cases, of course, directly attributable to other causes, sour milk, gross indiscretions in diet, etc., other bacteria, which are followed by diarrhea, particularly in hot weather. It is encouraging, however, to clinicians to feel that now, perhaps, for the first time a study of this frightful epidemic among infants is on a firmer basis.

Thus far, no radical alterations in the treatment of these diseases have been indicated by the pathological studies. The success of Shiga, in Japan, with anti-dysenteric serum, in the Japanese epidemic led to the hope that this would prove a valuable therapeutic agent. Thus far the results obtained by serum in about one hundred cases have not been very encouraging. It must be remembered, however, that but a very small number of babies were injected with the serum in the first few hours of illness, and that in Japan the healing effects of the serum are pronounced only when the serum is given within forty-eight hours after the onset of the symptoms. It is to be hoped that further effort will be made by the clinicians to use this serum at the earliest possible moment. The prophylactic us-

n may hereafter prove to be use-
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neasures which have been advo-
r years by clinicians. The organ-
introduced into the gastro-intes-
act in children through food or
hat is, with milk or water. It is
that the germs may be present
numbers in the normal intestinal
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Thus far, careful investigation of
ls of normal infants have failed
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rticularly in securing a pure milk
he sterilization, by boiling of the
ither used with the milk or be-
eedings, that many cases of diar-
isorders in infancy can be pre-

edral Street.

Written for the MEDICAL BRIEF.]

ular Adenitis in Children from ree to Ten Years of Age.

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r the greater majority of chronic
ments of the lymphatic glands are
ly seen in children between the
f three and ten years and
d to be tubercular. These chronic
atory processes are started by the
nt of the tubercle bacilli in the
ce of the glands, and if a little
exercised the channel of entry of
erms may readily be found in an
the oral cavity, a decayed tooth,
of the nose or naso-pharynx, sup-
n of the middle ear, eczema, or
icerative form of skin disease.
nost common site of these enlarge-
is in the deep cervical region, but
y be found in the pharyngeal axil-
inguinal regions, in a single gland
n of glands; when the tubercle
once gains entrance in a gland
or chain of glands the process set up is of a slow, chronic type, accompanied by gradual enlargement. The growth may develop into a caseous mass in the substance of the gland or glands involved, or in a large increase of connective tissue in and about the capsule of the gland, with very small foci of caseation. In the first form the enlargement is much more rapid, and the tendency to break down and form abscesses much greater, while in the latter instance the glands become bound together in a fibrous mass or chain and show but little tendency to form abscesses. If the process progresses the glands soften, the surrounding tissues become involved and blood vessels and nerves become enclosed in a large, knotty mass, closely adherent to the skin. The greater number of these little enlargements will finally result in abscesses of varying size. Swelling in these cases is profuse. Again the abscess may begin in the center of the gland substance and gradually involve the whole gland, with very little swelling of the surrounding tissue. The symptoms at first are those of a slight glandular enlargement, increasing gradually and thus apparently remaining stationary for a time. All this time the child may appear to be in fairly good health. The principal symptoms are those of a local affection of the glands. The greater number of these cases ultimately recover if they receive proper care, usually, however, the process will be long-drawn out, often covering several years, and there are often large, unsightly scars as a result of abscess formation and the breaking down of tissue.

While this condition may follow general tuberculosis, it is very seldom that general tuberculosis develops from adenitis.

Treatment.—In the treatment of these cases hygiene and nutrition play an important part. If the child has adenoids, diseased tonsils or hypertrophied bones these should be treated or removed, and the oral cavity rendered hygienic. Plain, nutritious food should be given at regular intervals. Such remedies as cod liver oil, syrup of phosphites, iron and the salts of guaiacol may be administered in suitable cases with benefit. Local applications are of little value. All manipulation of

the region should be avoided as much as possible. In some cases potassium iodide in lanolin may be applied at intervals, as a counter-irritant. Surgical treatment consists in opening the abscesses as soon as the suppurating focus has been established. If the abscess is isolated it may be aspirated and a ten per cent solution of iodoform and glycerine may be injected with good result, but in most cases it is necessary to remove the capsule of the gland with a Volkmann spoon. The abscess cavity should be drained and packed until it granulates from the bottom. Care should be taken not to injure vessels, nerves or other structures with which the glands are closely associated. The final result, if these cases are carefully managed, should be a good one.

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[Written for the MEDICAL BRIEF.]

Epilepsy and Its Mental Relation—Epileptic Automatism, or Psychical Phases of Epilepsy.

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This paper was written for the express purpose of giving to the general practitioner a brief outline of a few obscure conditions of the mind and nervous system. It has been my experience among professional men of the general practitioner type to find that their conceptions of epileptic conditions of a psychical variety have been almost entirely minus, or nearly so.

The true epileptic condition is spasm, the characteristic spasm in *petit mal* and *grand mal*. *Petit mal* and *grand mal* are divided into the so-called organic varieties, and those conditions in epilepsy where we have been unable to ascertain definitely the etiological factors producing epilepsy, merge into what we call idiopathic epilepsy. The next and a more interesting phase of epileptic and epileptoid conditions are known as the psychical equivalents, or psychical automatism. I have made a classification of these conditions and will discuss them in that order: Catalepsy, suggestion, somnambulism, dual consciousness, ecsta trance and hystero-epilepsy.

These conditions have not always b classified as belonging to epileptic epileptoid states, but as the subj is studied more and more each year, a tional light is thrown upon it, and we convinced that these complicated psy cal conditions are of epileptic origin. may not be in the law of direct desc but if not it is in the law of atavic scent.

Catalepsy.—When we speak of c lepsy, auto-suggestion, or what we so times call hypnotism, it does not m that hypnotism is a form of epilepsy, that all hypnotic subjects are epilep Cataleptic or cataleptoid subjects may have suffered from epilepsy, but it ha bearing upon the subject, and in those tients we find, as a rule, in some bra of their family, a history epileptic in c acter. The older writers do not discuss subject of epilepsy in this manner; t have rather ridiculed the idea that m obscure psychical conditions are epile in character. There is yet a question a whether catalepsy can exist with or w out an epileptic or epileptoid origin one of this or a preceding generat People who are subject to auto-sug tion and self-hypnotism—hypnotic st brought about by the influence of t own single mind, as each individua endowed with two distinct minds, the jective and the subjective—are not alw of epileptic heritage, but many times A cataleptic condition is one similar to hypnotic state; that is, the hypnotic s of a person who has been placed in t condition by another, not auto-suggest or self-hypnotism. A cataleptic person comes unconscious, rigid, and in a s of pseudo-coma, with the rigidity that companies catalepsy.

Somnambulism.—Dual consciousnes what we might sometimes term "w ing sleep." The somnambulist w in his sleep with his eyes open. S nambulism and dual consciousness closely allied. The somnambulist in a state of psychical automat The actions of the body are a matic, irrespective of the mind, as we might say, automatic actions of body irrespective of the inhibitory

lich govern the psychical mind, or consciousness. The subject of nbulism is not particularly interunless it is combined with another psychical epilepsy, and most comwith this form of dual consciousness.

will remember the story of Archialmaison (as told by Julian Haw. He (Archibald) was an epileptic ffered epileptic oblivion, in which on his mind reverted every seven ndhisactions were those of a period ears before. For instance, at fourre did the things he was in the f doing at seven, such as building ouses, playing with toys, etc. The ng seven years were perfectly ra. He was normal between the ages rteen and twenty-one. At the first year the cycle came round, leptic condition was present, and erted to his fourteenth year. He young woman from the man she arried. He shot and killed the astened stones to the body and t in a pond. He took the girl to t cellar by a passage he had exin his younger days, unknown to sent generation, and locked her in, the door and mantel back in place, covered the secret entrance. This ring the time he was rational. enty-first year was almost apng when he had committed the and had taken the girl to the cellar ked her up. He had not more than out and locked the door than the al condition again returned and oblivious to everything that he ne, his mind reverting to seven efore. When he was twenty-eight ld, of course, his mind again re and he was able to remember what done seven years before. He vise cellar and found the skeleton of l, who had starved to death. Perpileptic dual consciousness is the eristic of all psychical forms of , as mere epileptic dual consciousithout the spasm of epilepsy. To utomatism or psychical epilepsy ot necessary always to have the of epilepsy, but some form of epican usually be traced back to r generation, whether it be *petit mal* or *grand mal*. There are many other ways in which dual consciousness makes itself manifest. The story of Dr. Jekyll and Mr. Hyde describes a true case of dual consciousness. We have other psychical conditions which do not bear so much upon the subject of psychical automatism, but still they have a trace of epilepsy running through that generation or through generations gone before. This condition is of direct descent or follows the law of atavism, skipping one generation and making itself manifest in the third.

Ecstasy.—Ecstacy has never been classified as of epileptic origin, but I believe from my own observations that all obscure conditions, such as I have spoken of, are all traceable to epileptoid conditions in the present or previous generations. Ecstacy is a condition resembling hysteria, more than true psychical epilepsy. A person suffering from ecstacy is always in the happiest mood; they are buoyant because of the strained condition of the nervous system, and closely resemble, in this respect, religious fanatics. A person suffering from ecstasy becomes unconscious for a time, because they sometimes lapse into lethargy, or into cataleptic conditions. Ecstasy is accompanied with hysteria, which adds to the manifestations of this malady; they neither have to eat nor drink during the ecstatic seizures, unless it lasts abnormally long, and all bodily functions are sometimes suspended, excepting, of course, the heart beats. They live in a state of grandeur, exciting buoyancy and happiness, and this condition lasts from one to four or five days, depending, of course, upon the severity of the attack. It is a rare condition and seldom met except where it is combined with some form of religious fanaticism or hysteria. The history of one of my cases, suffering from christopathic hallucinations of the Crucifixion, will suffice to partially show the trend of thought and delusions of those in a condition of ecstacy.

"Mrs. ——— (*) grass widow, menstrually regular, aged thirty-two, of Scotch birth, twelve years in the United States, had grip five years ago, and has had

* Alienist and Neurologist, October, 1899.

two miscarriages subsequently. She lived unhappily with her husband, his occupation being unlawful and repulsive to her. She left her husband after he had threatened her with great violence. Shortly after this she heard the Sermon on the Mount, having previously suffered from nervousness and insomnia. Immediately after hearing the sermon the hallucination of the Savior and the crucifixion, the Savior in the sepulchre, and the resurrection appearing to her in succession, with the most painful vividness. She saw Him nailed to the cross, the bleeding feet and hands, the agonizing look, and heard the low, despairing cry. She saw him laid out for burial and saw his ascension. These appearances recurred to her from day to day and come now, but less vividly, only, however, as hallucinations. No deluscent acquiescent involvement of the intellect has developed with the pseudopia. She seeks medical relief and not the following of a miraculous mission. She is, consequenty, not deluded, but only hallucinated. The evolution of this hallucination is plain enough. A brain overstrained, its arteriole circulation quickened, its psychic neurons morbidly impressed, so that perception is intensified. The Sermon on the Mount quickens and gives shape to the exalted perception. Its impress remains, but it does not reach the morbid involvement of the reasoning faculties.

Her ancestral history being free from psychopathic taint, she is spared from the development of reasoning christopathy or christopathic paranoia and the community is saved from at least one more of these pitiable paranoiacs we see of late so often among the so-called Christian Scientists, while the world is spared the infliction of another christopathic founder of a misleading sect in a new theology. She does not take her place among the theolcgic perverts, because the morbid action stops this side of the ideational centers of the brain. The reasoning neurons of the cortex escape the morbid perceptional perversion, and she seeks the alienist and neurologist rather than converts among impressionable people.

Trance.—Trance is similar to that known as the lethargic state, with a few exceptions. They are both states of unconsciousness, both exhibiting a few ferential symptoms. Suffice it to say t only by personal observation of these c ditions will one be able to diagnostic them differentially. Whether or not t bear an important relation to epilepsy a question that is yet to be definitely termined. It would seem, however, though persons suffering from th states are the possessors of at least a n ropathic, if not an epileptic, heritage.

Hystero-Epilepsy.—Hystero-epilepsy, its name implies, is epilepsy with h teria, a combination of the two. We not have to have the characteristic s ure of *grand mal* to have a hystero- lepsy, but being a combined disease, a ease involving the will, as well as arterioles of the brain, we naturally h the symptoms produced by both co tions; these symptoms produced by th two different conditions will show plai that the patient is suffering from a c bined condition, known as hystero-e epsy. This disease is most common women, although we occasionally find in men, but more rarely. It was forme considered due to some uterine trou but this theory has been proved erro ous, because men have been known suffer attacks of hystero-epilepsy. A tient suffering from a well-defined att will begin by slight movements of muscles of the body and increasing u the arms are being thrown in a num of ways with spasmodic contractions the muscles, both clonic and tonic; so times rolling their eyes around in th sockets, and sometimes throwing th back and remaining stationary in t position. Sometimes we have a defi epileptic spasm intermingled with the tinct symptoms that we find in hyste In other words pure and simple, hyst epilepsy is the combination of the sy toms of hysteria and the symptoms of lepsy in one individual.

3872 Washington Boulevard.

Please find draft for one dollar for subscription to the MEDICAL BRIEF 1905. I think the BRIEF one of the l medical journals on my table, and alw read it first, as soon as I receive it.—S CLARK, M. D., Garrison, Neb.

[Written for the MEDICAL BRIEF.]

Malaria.

C. URBAN SMITH, A. B., PH. G., M. D.,

ssor of Principles and Practice of Medicine and Diseases of the Stomach in the Maryland Medical College; Physician-in-Chief Franklin Square Hospital; Fellow of the American Medical Association; President of the Baltimore Medical and Surgical Association; Member of the Baltimore County Medical Society and Member of the Medical and Chirurgical Faculty of Maryland, etc., etc., etc. Baltimore, Md.

examining the blood of patients as of routine examination, I was im-ed by the large number that con-d the plasmodium of malaria, and rmined to make a regular, systematic d. These examinations extended a period of three years, and the cases taken from my clinic at the Frank-quare Hospital and private practice. blood examination was made for the nodium without consideration for ymptoms for which the patients pre-d themselves. Both dry and fresh mens were made, relying almost en-y upon the fresh specimen, as my rience has taught me that the stained l is unreliable.

he number of cases examined was n hundred and sixty-four, with ty-one positive, or about 12 per cent. ful clinical data was made as regard ry, temperature, periodicity, or ma-l symptoms.

ere was a history of acute attacks in twenty-seven patients, and they dated from three days to eleven years.

e temperature varied according to paramount disease, being present in e of an inflammatory or infectious na- which were complicated with the ria, and in the acute cases, but was ingly absent in the majority of those were not complicated with inflamma- or infectious conditions.

larial symptoms, that is, chills, fever, periodicity, was present in twelve e cases, and six of the masked or com-ted cases.

e number of each variety of the plas-dium was: Tertian, eighty-two; quar-, three, and Astevo autumnal, six.

was interesting to note how widely ributed, geographically, the cases were, showing that the disease existed in localities not supposed to be malarial. The following States furnished positive cases:

Maine, one; Ohio, one; Indiana, one; Illinois, one; Indian Territory, one; New York City, two; Brooklyn, two; New York State, one; New Jersey, four; Virginia, five; West Virginia, one; North Carolina, six; South Carolina, two; Georgia, two; Florida, one; Maryland State, twenty-six; Baltimore, thirty-four.

The following gives the diseases from which blood examinations were made, the number of cases, and the number that were positive:

Cases.		Positive.
12	Acute Malaria	12
5	Chronic Catarrhal Dysentery	1
11	Acute Catarrhal Dysentery	1
2	Amoebic Dysentery	0
62	Neurasthenia and Neurasthenia Gastrica	6
37	Atonic Gastritis	2
2	Atrophic Gastritis	0
43	Chronic Catarrhal Gastritis	5
27	Hyperchlorhydria	4
8	Gastric Ulcer	1
11	Gastric Carcinoma	1
2	Pernicious Anemia	0
7	Gastroptosis	0
12	Gastrectasia	1
3	Enteroptosis	0
9	Gall Stones	2
23	Pulmonary Tuberculosis	2
9	Hay Fever	3
7	Asthma	3
3	Chlorosis	0
22	Rheumatism, Subacute	4
7	Rheumatism, Acute	1
1	Pseudo-Angina Pectoris	0
61	Grippe	6
4	Nephritis Parenchymatous, Chronic	0
12	Nephritis Interstitial, Chronic	1
27	Catarrhal Conditions Nose and Throat.	5
19	Migraine and Neuralgia	4
37	Uterine and Ovarian Diseases	5
5	Carcinoma Breast	1
17	Typhoid Fever	3
16	Pneumonia, Lobar	1
4	Pleurisy, Tubercular	0
3	Pleurisy, Serofibrinous	0
7	Artero Sclerosis, General	1
55	Bronchitis, Acute	4
2	Bronchitis, Chronic	0
2	Carcinoma, Liver	0
1	Cirrhosis, Liver	0
3	Locomotor Ataxia	0
2	Peripheral Neuritis	1
16	Subacute and Chronic Gout	1
2	Chronic Malarial Cachexia	0
10	Appendicitis	1

Treatment.—Efforts to eradicate the plasmodiæ with the usual remedial agents

was, to a certain extent, frustrated by the complicating disease.

In the cases of pure infection, the results were more satisfactory.

Practically all of the diseases in which the malaria was a complication showed little improvement unless the malaria was also treated.

Quinine has been our sheet anchor in the treatment of malaria, and has been looked upon as one of the few specifics in medicine. There is no doubt that it is, to-date, the best agent we have to destroy the parasite, but we are constantly handicapped by its disastrous effects upon the stomach and nervous system of many individuals, also the large number of individuals that have an idiosyncrasy to the drug. It was the disagreeable effect and inability to administer the medicine in large enough doses, especially in many of the above diseases complicating malaria that made the results often disappointing.

All cases improve under the use of quinine, even in small doses, but frequently after long administration we may still find the plasmodium present in the blood.

Hypodermic injections of the bisulphate and bimuriate of quinine in some of the very acute cases that would not tolerate the drug by the stomach, gave excellent results; also in several of the complicated cases it was the only way that the patients could take the medicine, and the only way that it was possible to completely clear the blood of the parasite.

The drawback to this method of administration was the severe irritation at the point of injection, and in spite of aseptic precautions, abscesses would result.

Many of the patients were kept to the point of cinchonism for five and six weeks without completely eradicating the plasmodiæ. It is just such cases that act as sources of infection for other individuals.

When the anopheles mosquito makes his appearance in the early summer, he acts as the medium of infection by biting these infected persons, and transferring the infection to a fresh subject, thereby makes a continuous chain of malaria from year to year.

Other remedies used were arsenic, in the form of Fowler's solution, to the point of saturation; also sodium arseniate, hypodermatically in some of the very anemic cases, but the irritation produced was extreme.

Arsenic in combination with iron and quinine, especially in anemic subjects, and when the complicating diseases would admit of its use. In the old standing cases prolonged tonic treatment with iron, arsenic and strychnia, with hygienic measures, gave the best results.

Methylene blue, introduced by Erlich of which so much was expected, has been disappointing in my hands.

Change of climate, or rather residence in another locality, either seashore or mountains, for three to six mouths, often brought complete recovery when all other treatment failed.

Although finding it practically impossible to destroy the plasmodium, it was most interesting and gratifying to note the improvement in most cases. This was especially striking in the neurotic and chronic diseases that were dominant, and the malaria complicating.

When we consider the large per cent of malaria found in these cases, one might say taken haphazard, it certainly seems that a more systematic examination of the blood of all patients for the plasmodium should be made, even if the cases present no symptoms of malaria, as it is many times masked. From a prophylactic standpoint it is of the greatest importance, knowing, as we do, that these individuals are the sources of infection for others.

1928 West Madison Avenue.

[Written for the MEDICAL BRIEF.]

The Ferments of the Intestinal Tract.

BY W. ANTOINE HALL, M. D.,

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St. Louis, Mo.

Since indigestion is the most important subject that we, as physicians, have to deal, a little review of the ferments that are found in the intestinal canal will not be amiss.

There are seven ferments found in the intestinal canal. Beginning with the mouth, we have ptyalin, which is found in the saliva. It is present at birth. It is

erment which acts upon the
s, especially cooked starches, turn-
m into maltose, but does not act
ncooked starch to any extent on
of the protection afforded the
granules by their cellulose cover-
his covering disappears during the
process.

e mouth, food undergoes chemical
echanical changes; the saliva is
with the cooked starch and the
l action takes place in its reduc-
maltose. This change is produced
ration. Successive molecules of
rch are attacked by the ptyalin
ally they are all converted into
if the process is continued long
. The mechanical change which
lace in the mouth is simply a sub-
of the food, being thoroughly
vith the alkaline saliva which coats
us and renders it easy to swallow.
he bolus arrives in the stomach it
neets an acid fluid, the gastric
which contains two ferments—the
and rennin. The alkalinity of the
timulates the little glands of the
h to activity and causes them to
rth their secretions. The contents
stomach when first received are
e, but as soon as they are mixed
e secretions of that organ they be-
cid, due to the hydrochloric acid
s also secreted in the stomach.

pepsin acts upon the proteids that
ntained in the food and reduces
proteoses and peptones.

rennin acts upon milk, curdling it
parating the liquid from the solid
; the liquid portion is absorbed
e solid portion may be acted upon
pepsin.

starches undergo no change in the
h, unless we speak of the arrest of
ion of the ptyalin when the contents
acid. The fats are not acted upon
stomach except the albuminous
e which surrounds the fatty
s, which is digested off by the pep-
d the fat is therefore liberated,
elted by the heat of the stomach,
pes in this condition. After the
aves the stomach it passes through
orus into the duodenum. Here we
e secretions of two of the most
ant organs of the body pouring
their secretions, the bile from the liver, and the pancreatic juice from the pancreas. There is no special ferment found in the secretion of the bile, but it seems that the secretion aids not only in the digestion of all kinds of food, but also in the absorption. The secretion of the pancreas contains ferments which act upon all food substances—amylopsin, which continues the action upon starch, which has been begun in the mouth, converting not only cooked, but raw starch as well, into maltose. Amylopsin is said to be the strongest ferment in the body. It is not found at birth and is present only at the end of the second month of life and is not fully formed until the end of the first year.

. Steapsin acts upon fats and prepares them for absorption. Its action is twofold: It saponifies a small portion of the fat, but the greater quantity is emulsified. In the formation of soap the steapsin breaks up a small portion of the fat into glycerine and its corresponding fatty acid. For instance, if the fat undergoing digestion is stearin, which is found in tallow, it breaks it up into glycerin and stearic acid. This stearic acid unites with the alkali present and forms a true soap. The soap so formed plays no very special part in the economy, but simply aids in the emulsification of the remainder. This action can be easily demonstrated by placing in a test tube a small piece of soap, a little melted fat, and albumen; heat gently and shake and a very fine emulsion will be formed. The condition found in the test tube is identically the same as that occurring in the intestinal tract.

Trypsin, a ferment found in the pancreatic juice, acts upon proteids, converting them into proteoses and peptones, continuing the action of the pepsin in the stomach. With this difference, however, trypsin acts in an alkaline medium; it acts by erosion, while the pepsin acts by penetration. Trypsin also acts upon hemipeptone, converting it into leucin and tyrosin, two waste products, and in this way prevents an overabsorption of the proteid material.

We also find a milk-curdling ferment in the pancreatic juice. Its action is the same as rennin in the stomach. In the

intestinal tract we find one ferment—invertin. It acts upon maltose, converting it into dextrose. It also inverts cane sugar into dextrose and lavulose, hence its name. It inverts likewise lactose, or milk sugar, in galactose; in this form it is absorbed.

This completes the action of the various ferments upon food. We find that the starches have been converted first into maltose and finally into dextrose; tne proteids have been converted into peptones and proteoses. The fats have been saponified and emulsified. The salts and waters which are taken with our food undergo no change and are absorbed.

We find that all the ferments with the exception of amylopsin are found at birth. As this ferment acts upon starches it is evident that it is quite useless to give a child any form of food containing starch until this ferment is fully developed, which is about the end of the first year.

1556 Tower Grove Avenue.

[Written for the MEDICAL BRIEF.]

Correction of Traumatic External Nasal Deformities.

BY HARMON SMITH, M. D.,

Assistant Surgeon Manhattan Eye and Ear Hospital. New York City.

Whereas the subcutaneous injection of paraffin will overcome the majority of depressed nasal deformities, yet there are quite a number where other surgical methods are essential to the acquisition of a perfect result. The most frequent is where a blow has separated the nasal bones and they are flattened down on the face, markedly increasing the breadth at the root and middle of the nose. This may be unilateral or bilateral; in either instance an injection of paraffin, with this obtaining, prevents the result desired.

Sufficient has been written regarding paraffin injection, so that I will only give the method I have employed in correcting this deformity in a series of cases in which some excellent results have been obtained.

If the nasal bones are both displaced and lie out of their proper direction and depressed, I make an incision of one-fourth of an inch on the dorsum of the nose about midway between the root and the tips of the nasal bones. This incision goes down through the skin and periosteum. The periosteum is then lifted with a small periosteal elevator—preferably one used for uplifting the mucous membrane from a septal spur, and the whole of the nasal bone from the point of incision to its lower extremity stripped of its covering. The same process is employed on the opposite side through the same incision. The with a small chisel the nasal bone is chiseled through from its superior to inferior border, with the plane surface of the chisel at right angles to the plane surface of the nasal bone—beginning, of course at its lower extremity and working up towards its root. This leaves the bone divided into several small squares, which still hold their inner attachment and are immediately covered by periosteum when pressure is exerted externally. These pieces are pressed in towards the median line until sufficient narrowing of the transverse diameter of the nose has taken place. Similar proceedings are followed on the nasal bone of the opposite side. With sufficient breaking up of these bones the condition is favorable to moulding the nose into any shape required by the contour of the face, and frequently I have found that it raised the dorsum of the nose sufficiently to obviate the necessity of injecting paraffin later. It is sometimes necessary to chisel through the nasal process of the superior maxillary bone in order to get sufficient narrowing to insure a good result.

After pressing in both sides as desired the incision is closed with an adhesive strip, as less scar remains than when a suture is employed. The mechanical appliances for holding the nasal bones in position after fractures, etc., are not adequate to the requirements, so that I employ several Bernay sponges, after the Simpson cut, placed one over the other in a lamellated fashion, until the top one reaches the dorsum of the nose, and its superior border meets the sponge on the opposite side at an acute angle over the dorsum of the nose, just as shingles meet over the comb of a house. Against these is placed a small hard

bandage of sufficient size to
essure against the base of the
hen adhesive straps of narrow
e drawn tightly across from the
one side to the temple of the
side. I likewise lamellate these
that firm pressure is brought
both sides, and the straps all
irectly over the median line
nose. A small piece of gauze
rbent cotton is placed under
of the sponge next the inner
of the eyes, to protect them
njury. Now the sponges are wet.
ney swell to eight times their size
lry, considerable pressure is
against the fractured bones,
re generally held well in place.
action follows this operation, and
mefaction results under the eyes,
her is of sufficient moment to
alarm. I permit the dressings
n for four days, when I reapply
e diminished swelling and slight
nent of straps and sponges relax
ure. At the end of eight days the
s ready for dismissal, but I deem
wait for two or three weeks be-
cting any paraffin, if at this time
essity obtains. The small scar
disappears in the course of sev-
ths, and I have had no occasion
pt its reduction by paraffin injec-
he operation has proven very sat-
, as the greater part of it is done
eously.

Forty-Ninth Street.

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ritten for the MEDICAL BRIEF.]

roinoma of the Rectum.

MILTON LINTHICUM, A. B., M. D.,

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ciation, etc. Baltimore Md.

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to direct attention to the IRE-
of carcinoma of the rectum, not
that its frequent occurrence in
important organ has been clearly
ed by the profession at large.

tiology of rectal carcinomata is as
derstood as those which occur in other parts of the body. Various theories have for centuries been promulgated by enthusiastic supporters, all of which have been weighed in the balance of precision and scientific laws, and found wanting; it would for that reason be useless in a short paper to even attempt to go into them, as it would not prove of any practical value.

While it seems to be the experience of most men to find cancers occurring after forty years of age, more frequently than in the earlier decades, but cancers of the bowel are not confined by any means to later life, but is often found between twenty and thirty, and it is not rare to find it in children under fifteen; indeed, Deaver says his "experience is to find it in young adults as often almost as past the forty-year age." When found in children it seems often accompanied with signs of premature ageing, such as wrinkled skin, grey hairs, etc., which indicate certain degeneration of the tissues a favorable state for the development of malignant growths. It is a well-known fact that rectal cancers occur oftener in men than women, the cause of which phenomena has never been satisfactorily explained.

The alarming increase of the proportional number of deaths resulting from cancers throughout the civilized world is appalling. This great increase, when taken with our lack of knowledge of the cause of cancer, is indeed discouraging and fearful, when we consider that there is no systematic and united effort being made to investigate its causative factors.

Rectal cancers are usually classified into four varieties, but they are so often merged into each other that it would be impossible to differentiate them, with the exception of the infrequent variety known as the squamous, usually found at the muco-cutaneous junction in various parts of the body, as well as at the union of the skin of the anus and mucous membranes of the rectum; it is characterized by a small amount of connective tissue, and numerous flat epithelial cells packed closely together, there being found in a mass of cells often little concentrically arranged groups, spoken of as cancer pearls.

The gross appearance of a squamous cancer presents a little hard nodule, scaly

on its surface, the scab covering it dropping off from time to time, leaving a fresh surface which at each time presents a larger surface. It grows very slowly, and spreads up and about the anus; it follows the lymphatics, and is easy to recognize and very amenable to treatment.

The adeno-carcinomata arise within the tract and have their origin within the mucous membrane, nearly always from the cells lining the crypts of Lieberkuhn; in their early stage, are to be differentiated from the benign villous adenoids; the chief difference is to be seen in microscopical section, showing the irregularity of the cell arrangement and an absence of a basement membrane. It is acknowledged, however, that villous adenoids may become malignant, and are, perhaps, on the border line between the ordinary benign and the malignant growths. Clinically, this form presents a soft, easily-compressible mass, irregular in its outline, and lobulated in appearance, from which a watery substance is easily expressed, the so-called cancer milk from it turning milky when dropped in water.

The medullary or encephaloid variety is very malignant, grows rapidly and recurs soon after removal. It is first seen as an immense mass projecting into the lumen of the gut, reddish or brownish in color, appearing as if it were covered with a tense membrane; later this capsule appears to rupture, and the growth protrudes through, looking much as if a portion of the brain were protruding through one of its coverings; hence the name, encephaloid.

The scirrhous, or hard cancer, occurs less frequently, is less rapid in its growth, and less malignant; its site is in the anterior portion of the bowel, about opposite the prostate gland, and in the sigmoid flexure. Early in the beginning a small nodule-like body is seen just beneath the mucous membrane, which soon breaks down, forming a hard, indurated ulceration, gradually extending around the gut, narrowing the lumen and producing a stricture; on section it cuts like gristle, and edges separate from the cut, due to the large amount of connective tissue.

The colloid form is not often encountered, has the appearance of a jelly-like mass, and is made of numerous degenerated mucoid cells, filled with colloid material.

It is exceedingly unfortunate that at the time when the symptoms of the presence of malignant growths in the rectum are so vague and indefinite, indeed, in a large number of cases there are practically none in the early stage of its existence, if it be located high up in the bowel; hence it behooves us to give serious attention to anything which at all points to any such trouble, and to remember that cancers of the bowel are not infrequent.

One of the most frequent symptoms in the beginning is a sense of uneasiness which is felt in the sacral region, and particularly a feeling of weight and fullness in the pelvis, increased at the time of defecation. A slight diarrhea, alternating with constipation, is a very important sign, and its recurring from time to time should always demand a thorough examination of the rectum and sigmoid; not allowing one's self to be content with merely making a digital examination, which permits of only exploring the lower three inches of the rectum; but after a digital examination and nothing found, an examination with the pneumatic proctoscope should always be made, for with it a view of the entire rectum and sigmoid flexure and at the same time, a portion of the colon can readily be obtained. This not being a painful procedure, does not call for an anesthetic. By thus proceeding you will be in a position to diagnosticate practically eighty per cent of intestinal growths at a time when most good may be done. I regret to say that I find among a large number of practitioners a great aversion to even inspecting this region, and I have seen cases of malignant growths treated for months, for piles, and the physician had never even made an examination, merely taking the patient's statement of his condition.

When the growth has assumed some size and begins to break down, there is intense pain, owing to the involvement of the nerve fibres, and their exposure to irritation, quantities of pus and bloody broken-down tissue is constantly dribbling from the anus, a foul, characteristic odor is also present, which is so pecu-

cancer that it cannot be mistaken, s greatly in diagnosis.
is but one treatment which offers pe of permanent cure, viz., operall other methods, such as electricntgen rays, and antitoxins, etc., oven absolutely useless and futile. is yet in an experimental state.
nly question then presenting itshall an operation be advised, or ase allowed to progress and palneasures be used.
ut operation patients afflicted rcinoma of the rectum, usually die two years, whether a colostomy n performed or not; the last six of their life is so filled with sufrom intense pain, such great disfrom obstruction, and the horri- and discharge make the patient is to himself and others. With extirpation of the growth, when organs are not too much inwhich, although one of the most surgical procedures, and attended siderable mortality, yet the perof cures is very good, considering of the lesion, and the close conwith other important organs.
cases living within three years eration are considered cures, but e long after this period.
eries of one thousand five hunl seventy-eight complete extirpathe rectum, three hundred and died. I believe that when the n is undertaken earlier in the dis- results will far surpass the pres-, and it seems at the present time in operation the only and soveredy.

th Charles Street.

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ritten for the MEDICAL BRIEF.]

Vomiting.

BY J. A. BURNETT, M. D.,
Pauline, Ark.

tinate cases of vomiting, the folvill usually give relief:

olic Acid	1 drop.
Opium Decod	5 drops.
uth Sub	20 grains.

: One dose, to be repeated every two or s if needed.

[Written for the MEDICAL BRIEF.]

Some Observations on Gun-Shot Wounds, with Brief Reports of Three Cases of Wounds of the Abdominal or Pelvic Viscera.

BY IRVING S. HAYNES, M. D.,
Professor of Practical Anatomy in Cornell Medical College; Visiting Surgeon to Harlem Hospital; Fellow of the Academy of Medicine, etc.
New York City.

In gun-shot wounds of the abdomen and pelvis, it is a safe plan to ascertain the extent of the damage caused by the bullet. If the viscera have not been injured an exploratory operation can not add to the severity of the condition. Whereas, if a viscus has been injured, and the operation is delayed to be performed at some later time, the probability is that infection will have spread over such an area as to preclude the possibility of a successful termination. Hence, early operation is indicated.

As a general proposition pistol-shot wounds should not be probed, except at the time of operation. If such course is decided upon the best probe is the finger. If a wound is probed without any definite idea of the treatment to be carried out, or if the preliminary treatment is not to be followed by operation, it is almost certain to cause infection of the wound, if it is not already infected. It is impossible in most cases to follow the track of the bullet for any considerable distance, hence the use of the probe is very limited.

In cases where operation is not advisable soon after the injury, as in gun-shot wounds of the face, or in the extremities, it is better to cleanse the point of entrance and exit if present antiseptically, put on dressings, and await further developments. If there is hemorrhage, however, an operation must be performed immediately, no matter where the wound is located, and the vessels secured, either at the point of lesion, or above or below the wound.

Wounds of the viscera should be operated upon as soon as possible, and the damage ascertained and repaired. If no damage has been done, the exploratory

wound can be sutured and the bullet tract drained as in other cases.

Wounds of the thorax are almost always simply left alone; that is, antiseptic dressings are applied, and the wound left undisturbed.

In bullet wounds of the heart, this organ has sometimes been sutured, but this means the promptest possible surgical interference. Details for such serious operations can be obtained in the latest operative surgeries.

The principal features, therefore, in the management of gun-shot wounds are, cleansing antiseptically, drainage, and antiseptic dressings.

Case 1.—M. L. Nephrectomy of left kidney for pistol-shot wound. Admitted August 26. There was severe pain on the affected side, general weakness and blood escaping from wound. On the 28th an exploratory operation was decided upon; a vertical incision was made over the left kidney along the track of the bullet, and the left kidney exposed. The apex of the kidney was found to be much damaged. A serious hemorrhage ensued and it was deemed advisable to remove the kidney, which was done. The vessels were secured by a strong ligature. Ligature, together with small drain, was left in the wound, which closed up to the drainage. The patient did fairly well, drainage was removed in ten days. The sinus closed after a few weeks of dressings at the hospital, and when last seen, five months after admission, the patient was in good health.

Case 2.—F. D., aged thirty; shot by thirty-eight-caliber pistol, in left gluteal region. Bullet found over front of pubic bone at base of penis, from where it was easily removed. The bullet had evidently traversed the bladder, as there was blood in the urine, and watery fluid, in which the bladder epithelial cells were found, issued from the gluteal wound. The following day a perineal section was performed and blood clots removed from bladder. All wounds drained and patient discharged, cured, in twenty-six days, taking a No. 18-E sound.

Case 3.—E. S., twenty-two years of age. Shot one and one-half inches to the left of middle line, and in sixth intercostal space. Owing to a misunderstanding, operation was delayed, and the patient was seen by the writer twelve hours after the injury. He was then in fair condition. Had vomited blood and there was abdominal distension and pain. An operation showed that the bullet had traversed the diaphram, left lobe of liver and stomach, close to esophagus. Wounds in stomach sutured, the posterior one with great difficulty; liver wound packed. Abdomen flushed; drainage placed and wound closed. Two and one-half weeks later the abdomen was opened above the pubis and a lot of foul pus liberated from pelvic cavity. The patient recovered and is in perfect health.

1125 Madison Avenue.

[Written for the MEDICAL BRIEF.]

Sprains of the Ankle Joint, With Particular Reference to the Diagnosis from Fractures.

BY PEARCE KINTZING, B. SC., M. D.,

Professor of Principles and Practice of Surgery in the Woman's Medical College of Baltimore; Professor of Diagnosis in the Maryland Medical College, etc., etc.
Baltimore, Md.

Physicians are prone to consider sprains as trivial injuries, and the common expression, "nothing but a sprain," bespeaks this levity. Sprains only too frequently lay the foundation for serious joint diseases. The joints which suffer most are the ginglymoid, and of these the ankle is by far the oftenest injured, because no provision is made for lateral motion or rotation, hence during violent abduction, adduction or twisting, the force being concentrated on the lateral ligaments causes them to overstretch, and often to give way.

These injuries we denominate sprains. In a similar manner, if the force be greater and the ligaments sufficiently resistant, the injury is transferred to the bony elements of the joint.

When a person falls directly upon the bottom of the foot, the lower end being inclined neither inward nor outward, the tibia alone must receive the weight of the body, and, therefore, the fibula escapes. When the force is applied to the inner or outer margins of the foot, so as

e the latter into extreme adduction
uction, the external malleolus is
to powerful pressure. In the first
e that of abduction, by the outer
of the calcaneum, and in the sec-
it of adduction by the outer sur-
f both the astragalus and os
in which position the applied
ften ruptures the internal lateral
t, and the fracture may take place
r of the two ways cited.

, therefore, a recent injury of the
oint, the question arises, is the
a dislocation, a sprain, or a frac-
Dislocation being accompanied by
ment, and by a change in the re-
ip of the bony prominences, may
ily excluded. The two remaining
have, however, many symptoms
non, viz., pain, disability, swelling,
ation. If the ligaments are torn,
ne case in severe sprains, preter-
mobility must be added to this
deed, the unnatural mobility of a
sprained ankle is frequently
nore apparent than is the case
fracture of either the external
us or the distal end of the tibia
Furthermore, infusion into the
of the tendons may impart a kind
crepitus, which makes itself ap-
on passive motion and which may
be mistaken for the real. Yet,
it is more probable that the in-
and hasty observer will mistake
ure for a sprain rather than the
It has been my fortune not in-
tly to meet fractures of a week or
ys' standing which have been
as sprains. These were, generally
g, fractures in which the injury
ught about with but little violence
ich primarily caused little or no
ty. In cases of this sort a com-
of the symptoms may not be

n.—In any age, but mostly in the
or the aged. Pain, most severe.
we may say that the pain of a
wisted ankle is one of the most
to which the human organism is
Swelling more extensive. The
ration coming on at an earlier
It is to be especially noted
is the external lateral ligament
is injured, and often it can be felt
as having given way, or its absence may be noted. On the other hand, fractures of this bone most often occur between the ages of thirty and forty, almost never under fifteen. Malgaigne, whose broad experience is summed up in his classical treatise on fracture, states that he has never seen a fracture of the ankle joint in a person under fifteen or over sixty.

The pain of sprain is of the character best described as sickening. This increases by motion. The disability is extreme and instantaneous; as has been said, the swelling comes with marked rapidity. An almost pathognomonic symptom of sprain is "foot drop," which never occurs in fracture, and which is otherwise only observed in palsies. This is due to the rapid exudation which fills the joint capsule.

The injury in case of fracture is most often received when the foot is in abduction; that is, the inner surface of the foot is the pivotal surface or fulcrum. This fact accounts for the rupture of the internal lateral ligament by overstretching, as well as for the broken end of the fibula. It is to be noted that the broken end of the lower fragment is forced inward toward the tibia. In cases of sprain, which our patient so frequently describes as a "turn of the foot," we are familiar with the fact that the foot has turned in such a manner that the weight of the body is received upon the external edge, just the opposite of the manner in which fractures are usually acquired.

I might cite the fact that Malgaigne states that he has never seen the displacement above described in cases of fracture produced while the foot was in abduction. This certainly is controverted by the experience of American surgeons.

Indications for Treatment.—Having determined the character of the injury the question of paramount importance from the standpoint of the patient is, in what manner shall we treat it? The indications for treatment are three. (1) To control the inflammation, (2) to secure the absorption of transudation, and (3) to restore function. Two methods of treating sprains have been in vogue from time immemorial. One might be described as the "heroic," the other as the "rest" cure. In my personal experience

the most satisfactory method of treatment has been as follows: To place the sprained member as quickly as possible after the injury has been received into a solution of hot brine, allowing it to remain there from three to five minutes, then to plunge it immediately into a cold solution of bicarbonate of soda, alternating between these two solutions as long as the patience and perseverance of the patient will permit. The difference in the specific gravity of the solutions, the stimulating action of the alternating heat and cold, markedly and rapidly reduce the swelling by causing absorption of the exudate; they also markedly influence the pain, relieving it more quickly than anodynes. After a rest this treatment should be repeated. About twenty-four to thirty-six hours usually suffices to bring the member into such state that it can be readily and satisfactorily examined without great inconvenience to the patient. If doubt has existed as to the nature of the injury, a correct diagnosis may now be made, with the full assurance that absolutely no harm has resulted from the delay.

The swelling having been satisfactorily reduced, an elastic bandage made from flannel may be smoothly, snugly and comparatively tightly applied. This further reduces the swelling, and, by immobilizing the joints adds much to the comfort of the patient. The second element in the treatment is massage, which may usually be applied about the third day.

A word of caution is necessary with regard to too protracted fixation, as frequently disability, even anchylosis, may result therefrom. If our injury on the other hand proves to be a fracture, all of the indications are best met by the careful application of a plaster cast, which may be applied as well by the practitioner in the remote districts, as by his city brother.

While the X-ray machine facilitates the diagnosis, it is not essential, as a careful consideration of the anatomical points will invariably satisfy us as to the nature of the injury in this well-marked joint.

1818 North Charles Street.

[Written for the MEDICAL BRIEF.]

Cerebro-Spinal Meningitis.

BY HENRY N. READ, M. D.,

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In view of the fact that a large number of cases of cerebro-spinal meningitis have appeared recently, a few words relative to the diagnosis and treatment of this disease will be of special interest.

This cerebro-spinal variety of meningitis is due to the diplococcus intracellularis. Practically, there are but two kinds of meningitis, tubercular and non-tubercular, and the prognosis is largely governed by the classification of the disease. If tubercular, the disease is, as a rule, hopeless. If non-tubercular, prognosis is less fatal, but is still very grave.

The prognosis is better in the cerebro-spinal variety than in that due to pneumococcus, trauma, or any of the mixed infections, including the streptococcus.

Diagnosis.—Diagnosis of the cerebro-spinal variety of meningitis is readily made. When the disease prevails epidemically and is accompanied with an eruption from which the old name of "spotted fever" took its origin, the mortality is very high. Cases occurring sporadically are usually apt to be much milder in character. In any event, it is a dangerous and long-continued disease, marked by a protracted convalescence, and the sequelæ may leave marks which will last through life.

The fever, as a rule, is not very high, seldom rising beyond 103° or 103½° F. The meninges of the cord are most prominently affected, and give rise to symptoms referable to lesions of the nerves coming off from the upper part of the cord, namely, retraction of the head, severe pains at the base of the brain, etc.

Treatment.—The treatment, unfortunately, does not present any very marked features by which we can hope to cure the disease and is confined mainly to the alleviation of the symptoms and supporting the strength of the patient.

Usually it is well to keep the temperature within bounds by cold sponging, and

o necessary, in my opinion, to ad-
remedies for the relief of the
d to control the intense nervous
ent.
e disease usually lasts a long time
cessary to conserve the strength
patient as much as possible. I
en in the habit of giving both
nd chloral hydrate, and in good-
oses, for the relief of pain, the
ion of sleep and the guarding
convulsive seizures.
ives and careful regulation of the
are required. Sometimes counter-
n to the back of the neck will
at relief.
ildren it is necessary that they
e put to bed, in a cool, dark room,
and noise shut out, and excite-
dulously avoided.
trength must be supported with
us and easily-digested food, such
of meat, milk properly prepared,
d stimulants used with care.
the second week, if the fever is
to 102° F., and the convalescence
o be sure, I have found of benefit
ninistration of Brown-Sequard's
reatment of the iodides and bro-
which are used in epilepsy. This
ntinued for two or three weeks, or
nstitutional symptoms have dis-
d.
disease usually follows a long and
winter with dampness, and rigid
conditions; the general vitality
atient seems to be impaired after
ason has passed.
l puncture has not proved of any
in my hands, as regards treat-
hough enabling us to clear up a
l diagnosis.
very seldom takes place in less
weeks, and may require a much
ime.

ton Street.

[Written for the MEDICAL BRIEF.]

Cough Following Colds.

ROBERT C. KENNER, A. M., M. D.,
Louisville, Ky.

age 432, May issue, I had an
on this subject, and wish to have
e of the second prescription read
spoonful instead of a teaspoonful.

[Written for the MEDICAL BRIEF.]

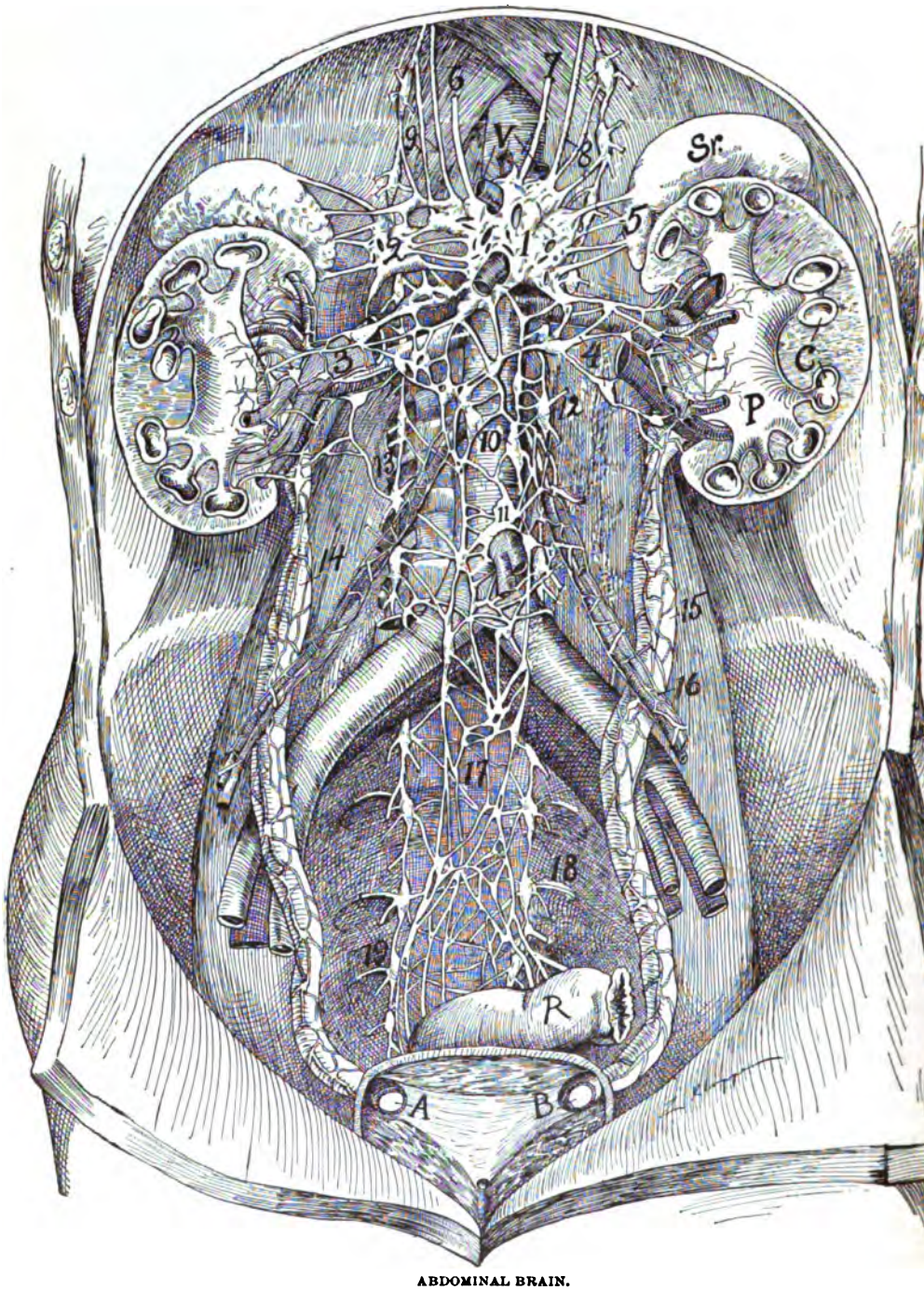
Views on the Abdominal Brain.

BY BYRON ROBINSON, B. S., M. D.,
Chicago, Ill.

Every Organ Has Its Rhythm.

In this short communication I wish to present some views on the abdominal brain, both practical and theoretical, with two drawings from nature illustrating its dimension, location, contour and distribution.

For a decade and a half I have investigated and written on the subject of the sympathetic nerve—the abdominal brain and automatic visceral ganglia. During those fifteen years I have published numerous articles and a large edition, my book "Abdominal Brain and Automatic Visceral Ganglia," is out of print. However, periodically some physician has published an article claiming new views; yet I have not read a single article containing the so-called new views that was not published in my investigations. Recently a physician claimed that the solar plexus was the seat of shock, but had never noted a reference to that in literature. This I had discussed repeatedly in my work. Another physician claimed that irritation in the ductus bilis from calculus produced spasm of the intestines. Surely such an effort has been thrashed over for years and is not new. The manifestations of the abdominal brain—anatomic and clinical—entitles it to the dignity of a nervous center—a brain. It receives sensation, reorganizing it and emitting motion. It is a receiver, a reorganizer, an emitter of nerve forces. First, we must consider the abdominal brain, the semilunar ganglia or solar plexus, in the physiology of the sympathetic. This large ganglion receives sensation and emits motion; it is a brain. It is situated (see Figures 1 and 2) at the root of the great visceral artery, *i. e.*, at the foot of the celiac axis. It lies behind the stomach and entwines itself about the aorta and root of the celiac axis and superior mesenteric artery. In short, it is located at the roots of the celiac, renal and superior mesenteric arteries. It supplies all the abdominal viscera. It is a gigantic vaso-



ABDOMINAL BRAIN.

FIG. 1 is a drawing from a subject possessing a typical large abdominal brain with the ureter, bladder and urethra dilated into a single channel without sphincters intact. 1 and 2, abdominal brain; 3 and 4, renal plexuses; 5, plexus adrenalis; 6 and 7, the two vagi; 8 and 9, the three splanchnics on each side; 10, the two spermatic ganglia; 11, inferior mesenteric ganglia; 12 and 13, lumbar lateral chain of ganglia; 14 and 15, dilated ureters wrapped by nerve plexuses; 16, arterio-ureteral crossing; 17, hypogastric plexuses; 18 and 19, lateral chain of sacral ganglia; A and B Patulous ureteral orifices.

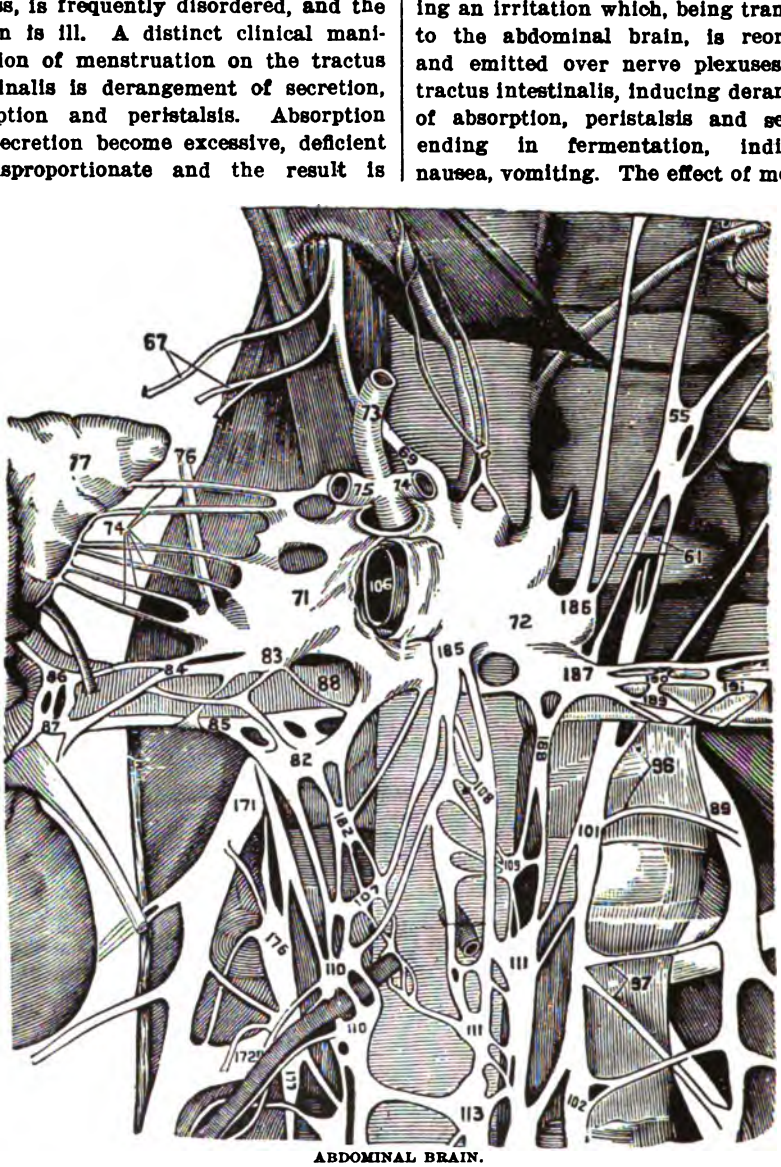
enter for the viscera, as is shown location at the roots of celiac, nd superior mesenteric arteries— at abdominal visceral blood way. nnected with almost every organ body, with a supremacy over vis- irculation, with a control over secretion and nutrition, with a nfluence over the heart that often fainting and may even lead to It commands visceral peristal- wonder that we may consider the ai brain the center of life itself, cranial brain is the center of and psychical forces.

bdominal brain, or solar plexus, osed of the aggregation or coales- a large number of ganglia. The al brain is composed of two ar ganglia—compact masses of ells, nerve cords and connective During many dissections I have at the right semilunar ganglion smaller (see Figures 1 and 2), s because it lies dorsal to the vena cava, and hence has suf- om pressure atrophy. Each of ilunar ganglia receives the great ic nerve of the corresponding he abdominal brain receives the —cranial nerves. It may be here hat although the semilunar gan- located on the sides, they are lly so intimately associated with r plexus that we insist in com- ll the names into one, viz., that bdominal brain.

exuses or strands of nerves are y to the abdominal brain. The nce of the abdominal brain in the physiology, *i. e.*, in life, may be d to that of the sun over the The influence of the sun rules ets, though they are influenced r suns and planets (*e. g.*, the spinal). The abdominal brain glion cells (brain centers), nerve (nerve conductors) and a peri- nerve apparatus (for collecting n), just as the cranial brain s all central conducting and al apparatus. The adbominal n live without the cranial (shown g fetuses with n› trace of cerebro- xis), while the cranial brain and n not live without the abdominal brain. The great sympathetic ganglia, of which the abdominal brain is the ruling potentate, is the center of life itself. So long as the forces of life, assimilation, circulation, respiration and secretion and absorption proceed undisturbed, as in health the abdominal brain remains a silent, steady, but ceaseless worker; but being unbalanced by peripheral or central irritation, it quickly manifests or resents the insult. From the abdominal brain large plexuses with numerous nerve strands pass to every abdominal viscus, connecting the viscera into a delicately balanced, nicely ordered, exquisitely arranged apparatus for the object of maintaining life. The nerve plexuses or strands are arranged along the highways of nourishment—blood and lymph vessels, vary in size according to the importance of the viscus supplied.

Second, we must consider the automatic visceral ganglia to comprehend the domain of power possessed by the abdominal brain and its clinical manifestation. The automatic visceral ganglia are lodged in the walls of the various visceral tracts and every plexus of each visceral tract leads to the abdominal brain. When the abdominal brain receives a sensation it reorganizes it and emits it on lines of least resistance, which means that the motion travels with greatest facility on the plexus possessing the greatest number of nerve strands. Important visceral tracts, significant to life, possess rich nerve strands and plexuses, as *e. g.*, the tractus intestinalis, genitalis and urinarius. A few common examples of irritation, disease in any one visceral tract, will demonstrate the clinical manifestation on the abdominal brain and the other visceral tracts. It is plain to the anatomist that the abdominal brain with its various nerve plexuses to the visceral tracts are finely and exquisitely balanced. It should be plain to the physiologist, the clinician, that irritation, disturbance, disease in any one visceral tract, will transmit the abnormal force to the abdominal brain, reorganizing it and emitting it, pellmell, disorderly, wildly on all other visceral tracts, causing disorder of secretion, absorption and peristalsis. Take, for example, the tractus genitalis. Menstruation, which should be a normal

process, is frequently disordered, and the woman is ill. A distinct clinical manifestation of menstruation on the tractus intestinalis is derangement of secretion, absorption and peristalsis. Absorption and secretion become excessive, deficient or disproportionate and the result is ing an irritation which, being transmitte to the abdominal brain, is reorganize and emitted over nerve plexuses to th tractus intestinalis, inducing derangemen of absorption, peristalsis and secretion ending in fermentation, indigestion nausea, vomiting. The effect of menstrua



ABDOMINAL BRAIN.

FIG. 2. (Byron Robinson.) This illustration, drawn from a cadaver, illustrates the location, relation and radiating plexuses of the solar plexus, or abdominal brain (71 and 72), which is built around the visceral artery—the celiac (73, 74, 75) and superior mesenteric (106) arteries; hence it dominates the visceral function as to vascularity (blood and lymph), peristalsis, absorption and secretion. The clinical manifestations of the abdominal brain are co-extensive with that of the abdominal viscera. This ganglion of the first magnitude presents radiating plexuses to all the abdominal viscera, presenting an exquisitively balanced and poised nervous mechanism, controlling vascularity (blood and lymph), peristalsis, absorption and secretion.

fermentation, gas in the intestinalis tract —indigestion. The peristalsis becomes excessive, deficient or disproportionate, resulting in constipation, diarrhea or vomiting. Pregnancy by the expansion of uterine contents stretch, compress, traumatize the nerves of the uterus, caus- tion, gestation, in the tractus genitalis, i to induce marked changes, disturbance in the tractus urinarius—the peristalsis absorption and secretion of the tractu urinarius is deranged, disturbed, dis eased; albumen occurs, excessive or defi cient urine is secreted, nephritis may

Appendicitis nearly always pro-
s first effect—pain—in the region
dominal brain, *i. e.*, the irritation
appendix is transmitted to the
al brain and reorganized as pain.
y be followed by disordered, ex-
peristalsis—vomiting. Finally
ne appendicitis becomes estab-
ocalized, the pain is felt in the
f the appendix. In calculus of
ry passages where incarceration
alculus arises the irritation is
transmitted to the abdominal
ere it is reorganized and emitted
actus intestinalis with result of
peristalsis and nausea or vomit-
le absorption and secretion suffer
Now excessive peristalsis is
pasm of the tractus intestinalis,
ll not cause obstruction, for the
is would sooner or later become
retic, allowing the passage of
Hence operation for spasm
e peristalsis) of the tractus in-
due to calculus in the biliary
is unnecessary, for paralysis of
a muscularis would overcome it.
ion, calculus in the tractus in-
, rapidly produces derangement
actus intestinalis from transmis-
ne abdominal brain over the renal
reorganizing and emitting to
sceral tracts. The tractus intes-
s affected the most, in all auto-
nglionic visceral irritation, be-
is supplied by the greatest num-
erves and ganglia; it is a primi-
ensive dominating visceral tract
Examples of the clinical mani-
s of the abdominal brain might
nitely multiplied, but from the
ay be gained views for diagnosis
ctice. Irritation on the auto-
sceral ganglia should be removed
e physiologic balance of the vis-
acts. For example, constipation
tractus intestinalis and concen-
rine of the tractus urinarius—
nifest irritants—can frequently
ved with facility by the regular
ration of ample fluids.

Street.

[Written for the MEDICAL BRIEF.]

The Undulatory Theory in Therapeutics.

BY SAMUEL S. WALLIAN, A. M., M. D.,
New York.

[Paper 2.]

RATIONALE OF VIBRATORY THERAPEUTICS.

In the course of the later investigations of the nature of matter, it has been practically determined that the heat of a body is induced and controlled by the friction of its constituent corpuscles, or, if you please, *ions*, revolving or gyrating around each other and among themselves.

Any influence that will accelerate this intercorpuscular motion will increase the temperature of a body. Mechanical vibration can be made to increase the temperature of a part, therefore it is a logical inference that it increases the velocity of the intercorpuscular motion. It is also found by actual experiment that mechanical vibration can be so applied as to reduce the temperature of a locality or part.

Heat is attributed to what are termed thermal waves, and these waves are estimated to be the result of the lowest or slowest rate of undulatory or vibratory motion of which our perceptions take cognizance.

A higher velocity of wave motion or undulation produces light, and these waves are called photogenic.

Another definite increase of velocity produces chemical waves, which stand at the head of the list.

Each of these distinct variations of wave or vibratory velocity has its definite sphere in connection with vital phenomena. The respective spheres of heat and light rays have been quite generally investigated and discussed. The field of action of the chemical undulations has been under active investigation since Roentgen's discovery of his X-ray, which, with the ultra violet, is the best material exponent of the highest known, or at least the highest computable velocities. Thus far it has been demonstrated that these high-frequency vibrations are intimately associated with all the more complex vital phenomena—metabolism and tissue metamorphosis.

The velocity of heat and light waves has been at least approximately measured. The rate of the latter is given as two hundred thousand miles per second, estimated as you would estimate the speed of a railway train. This, however, gives no clue to the frequency of the vibratory repetitions. When, as in case of the X-Ray, n-ray, b-ray, d'Arsonval, ultra violet, and other so-called high frequency currents or vibrations, all of which have thus far been electrically excited, the vibrations are so rapid that they can only be hypothetically computed. All the electrical phenomena are the result of vibrations, each particular kind having its own definite rate; and the new metals, radium and polonium, emit a rate so incomputably rapid that they are called radiations instead of vibrations. It may be assumed, therefore, that radiations are vibrations having such a velocity that we have no means of measuring it.

When force is manifested in the form of heat waves, it is not usually visible. If their velocity is gradually increased it finally makes itself sensible to the organs of sight, constituting what is known as red light, the lowest division in the spectrum. The other colors of the spectrum follow in their well-known order as the vibratory velocity is increased, ending with the actinic or chemical rays, which are also invisible.

The polarization of electrical currents and exciters is but an interference or interruption in relation to their relative rapidity.

This brings us to a study of nerve currents or vital currents, and makes it at least plausible that these currents can readily become so deranged as to be called polarized impulses.

Since light rays are easily diverted, bent out of course or interrupted, as by the interposition of a simple crystal of tourmaline, or some other accidental substance, and are again restored to their primitive character by an equally simple interposition, thus illustrating how slight a cause may influence important results, so in the realm of vital chemistry, disturbed impulses may be brought back to normal conditions by influences which at first thought would be considered trivial and of no force.

Coming down to practical applications what is the scope of mechanical vibratory impulse in the amelioration and "cure" of the every-day maladies, for which the public seeks the aid of the physician?

In a sweeping way it may be said that its fundamental and far-reaching influence and capacity lies in its power to both control and stimulate tissue metamorphosis. To do this it must be able to both enhance and inhibit vital functions—circulation, secretion and excretion. This it can be made to do both directly and indirectly. Directly by being applied locally to dormant, disabled anemic or atrophied organs or parts. Indirectly by physiological stimulation of trophic nerve centers that control certain important vital functions.

First of all, it can be efficiently invoked to increase or diminish the blood-supply of a part. As regards superficial parts manual massage can be made to accomplish the same result, but possesses feeble power over deep-seated organs, requires the expenditure of much time and strength on the part of the operator, and has practically no influence over deep-seated nerve or trophic centers.

In like manner mechanical vibration can be made to stimulate sluggish or debilitated absorbents and lymph glands, and to restore dormant secretory organs to normal or even excessive function.

In any means that will definitely accomplish these physiologic and therapeutic results the student of pathology will recognize almost unlimited possibilities. No drug or class of drug remedies can be relied on to produce anything like such varied and comprehensive changes in the functional condition of an organism. Nor is it necessary to point out in detail and by name the long list of ailments to which such a measure can be adapted. Disturbed circulation can be equalized, congestions dispersed, neoplasms and hypertrophies discussed, and both secretion and excretion or elimination promoted. The diseases that hinge upon one or more of these abnormal conditions are almost legion.

509 Fifth Avenue.

ritten for the MEDICAL BRIEF.]

Preventive Medicine.

BY D. A. BLAIR, M. D.,
Ellisville, Ill.

(Continued from page 408.)

CLEANLINESS.

leanliness is next to godliness."
—SHAKESPEARE.

roper care of the milk and uten-
, including the bottle and nipple,
e greatest importance; and, a
umber of cases of cholera infan-
ld be prevented than are cured,
hysician would give explicit in-
s concerning this all-important

oice and care of the cow is quite
t.

—The cow should be *young* and
and it should have become fresh
eeks prior to the birth of the

.—The cow should be kept in a
ry stable, and should be kept on
rishing food, with good, pure
It should not be turned out in
during the early months of the
fe.

—The milker's hands, together
cow's udder and teats, should
ughly washed before milking.
ucket, strainer and containers
e washed with soap, rinsed with
water, aired and sunned after
een used, and scalded again im-
y before using.

.—The milk should be strained
uncovered until the animal heat
it. The milk required for the
uld be sealed in air-tight bottles
enough for one feeding in each
if the weather is warm, these
ld be placed on ice or submerged
water. The milk, while cooling,
never be placed near anything
as a strong odor, such as onions,
etc.

ber of nursing bottles should be
hand, and these should receive
care. Bottles that have no shoul-
inaccessible corners should be
insure every part being clean.
with tubes should be shunned as
ld a deadly poison, for that is
what they contain after having been used, as they *can not* be cleansed.

The nipples, if they are in sections, should be taken apart and the nipple washed outside, then turned wrong side out, and the same process gone through with. Each separate part of the bottle and nipple should be washed with soap and rinsed with boiling water every time it is used, and then filled with a boiling solution of common soda, and left standing until wanted, when it should be emptied, and rinsed with *boiled* water and filled with the milk, and it is then ready for immediate use.

Every twenty-four hours, or even more frequently, the nipple and bottle should be placed in a pan and boiled for at least ten minutes.

EXCESSIVE HEAT AND CHANGES.

Sudden changes in temperature are a strong factor in the production of intestinal troubles of this nature, and should be guarded against by suiting the clothing to the temperature.

Especially is this true of excessive heat, and it is a very important factor in the troubles arising during the summer months. In the first place, the emunctories of the skin, taken as a whole, eliminate large quantities of the accumulated impurities of the system. Now, as the glands of the skin are more exposed to the sudden changes, it is through this agency that many times these troubles are brought about, for by the closing of these pores these impurities are retained in the system and Nature seeks to throw it off by the bowels and kidneys, and this overtaxes these organs of elimination, thus by this over-taxation, and the abnormal conditions existing, caused by the absorption of morbific substances into the blood, producing a nervous depression and a consequent infection of the entire system. Also, heat depresses and decreases the resisting power of the nervous system, and as a result, it is more susceptible to any abnormal changes.

And then, too, all conditions are favorable to the production of micro-organisms, and thus we have, as a result, the epidemic troubles of this kind during the heated periods.

Now, as for the preventive treatment for these troubles, since the causes have

been given, the absence of them will, of course, mean the absence of the disease.

Stated concisely, to prevent the diseases incident to the second year of childhood, give the child pure air, an equable temperature, with frequent baths; pure, wholesome food at proper intervals, generally not more frequently than every two hours. Have *absolute cleanliness* of vessels used in feeding, sterilize them by boiling, and keep the bowels clear of any matter that might be injurious, by flushing them with sterilized water.

Dentition.

Dentition is given as the cause of many of these troubles of indigestion, etc., but, while it may be, still I do not think it is the prime cause, and we will have to go deeper in our etiological research to find the logical cause.

It is true, we find that the nervous phenomena are exaggerated during the period of dentition, still, if we observe a child that is teething during the cooler months, we do not get such grave symptoms.

Dentition being a physiological process, unless there are other complications, there should be no greater disturbance of the general system than that caused by the natural development of any other part of the organism; but what we find generally, when called to attend cases of this kind, is a poorly-nourished child. If called in the beginning of the trouble, the emaciation may not be so marked, but we find a hyper-sensitive, nervous condition, which causes pathological changes, that in turn bring about a disturbance of the physiological functions.

The varied changes thus brought about are not noticeable alike in all, but are more marked in children of a neurotic diathesis, for the delicate nervous organism readily responds to any disturbance of the physiological functions, no matter how slight.

My opinion is, that this abnormal condition superinduces disturbances of dentition, and that this is the outcome of the same processes, operating in the system, which result in gastro-intestinal troubles. They are the diseased manifestations of the same abnormal functions. Dentition occurs at all seasons of the year, but it is only when conditions favor decomposition of organic matter, and which produce micro-organisms and infection, that we have gastro-intestinal troubles of this kind.

"This is the way the physicians mend or end us."
—Byron.

Prophylactic Surgery.

As the successful termination of every case of surgery depends upon the proper sterilization of the instruments, the surgeon and assistants, and the field of operation with the dressing, it is quite fitting that cognizance should be taken of it in a paper of this nature.

Instruments.

Instruments should consist only of metal, and should be without indentations of any kind. They should be constructed as simply as is consistent with the purpose for which they are designed. The only sure and safe method of sterilizing instruments is by wrapping them in some soft material to protect the edges, and placing them in a suitable vessel and boiling thoroughly for fifteen or twenty minutes in a one per cent soda solution, and when removed and cooled they are ready for use. This seems to be the most convenient, as well as the surest method.

Surgeon and Assistants.

The outer surfaces being exposed to the atmosphere can not but be infested with micro-organisms, which, if introduced into the system through any surgical or other wound, would produce serious results. We, no doubt, have all seen cases where, through the neglect of the operator or assistants, septic poisoning has been produced. Hence, it is imperative that *absolute surgical cleanliness* be obtained on the part of the surgeon about to operate.

First, the hands and forearms should be brushed energetically, using hot water and green soap, and after ten minutes' faithful work, they should be dried on a sterilized towel. A thorough cleansing of the nails is of the utmost importance. The nails should not be filed, as the file leaves minute irregularities in which microbes may find a lodging place, and are difficult to remove. We should put away all finger rings, as they are worse than useless and your patient's life may be the price paid for your foolish pride, for no

now clean and smooth the rings
ro-organisms can find a nesting
the minute folds of skin caused
ing, and thus the patient may be-
fected. When the nails are thor-
leansed, the hands and forearms
e bathed in an eighty per cent of
then washed in a one one-thou-
olution of bichloride. After this
e the work will have to be done
ain if anything unsterilized be

THE FIELD OF OPERATION.

care must be given the patient,
field of operation. The skin must
sed by several baths, and over
of operation the skin should be
with ether after the last bath.
is present, the parts should be
shaved, and especially is this
all abdominal operations. After
ing, the field should be carefully
with green soap and hot water,
rward with an eighty per cent solu-
cohol, and then with one one-thou-
olution of bichloride of mercury.
tions in the region of the umbili-
ticular care should be exercised
omplete sterilization, as the folds
umbilicus are very difficult to
Where this can not be com-
lone the next best thing to do is
he micro-organism up in the um-
y the use of a sterilized prepara-
odoform-collodion.
operation is that of laparotomy,
t to cover the field of operation
een soap and let it remain for
four hours, when it is removed
epithelium, after which, the field
ed with a towel, which is satur-
th a solution of one one-thou-
f bichloride of mercury.
l the operation be on the feet, a
re thorough method must be pur-
cause, generally, the feet are not
as often, and the skin being thick-
ey can not be sterilized by ordin-
hods; hence, we resort to the fol-
procedure: A thorough scrub-
given for four successive days,
hich a bath in a solution of one
ihredths bichloride of mercury is
hen the feet are covered with
m acetate, and this surrounded
silk to prevent evaporating. This
is repeated for three or four days, when the thickened skin can be removed and with it the germs of infection.

It is quite apparent that mucous membranes are not so easily or perfectly sterilized, from the fact that chemicals strong enough to destroy micro-organisms, would do serious injury, so that mechanical means will have to be depended upon almost exclusively.

In operations on cavities, such as the vagina, the pudendum should be shaved and thoroughly cleansed in the manner described, and the vagina washed with sapo viridis and hot water, and then wiped with sterilized gauze, saturated with ether, or the parts may be sprayed with an ethereal solution of iodoform.

The same process may be pursued in other cavities, where operations are to be performed, although a perfectly aseptic condition of a diseased bladder or rectum are as yet unknown.

Operations on the urethra or bladder should be preceded by irrigation with a one twenty-five-thousandths solution of bichloride of mercury; this should be done every six hours for at least three days before the operation; also, the urine may be sterilized by the administration of some antiseptic, such as salol or some other disinfectant. In operations on the mouth the same precautions should be taken, the teeth should be thoroughly cleansed, then a solution of permanganate of potassium or boric acid may be used, washing the mouth thoroughly every two hours for at least two days before the operation.

In any operation, be it major or minor, the same *care* should be exercised to prevent infection. By thus preventing infection, we, to a greater or less extent, deprive surgery of its terrors, and the "grim rider of the pale horse" of many of his victims.

We know that in the past the ignorance of the laws governing surgical asepsis was the cause of much suffering, and the great per cent of fatalities resulting from surgical operations. Does it not incite every conscientious operator to use every precaution science and experience have given him for the preservation of human life and the prevention of suffering? We can only do this by careful attention to our

own actions, and by instructing the laity in regard to the possible results of carelessness in their everyday life. Many persons die from having poisoned themselves in trimming their corns with an infected knife or razor, or pricking a small abscess with an unclean pin. If they had been told that the parts should have been washed and the instruments been boiled, they would not have fallen victims to that most potent of all agencies destructive to human life, viz., *ignorance.*

Man, in health, has little knowledge of the strength of the silver cord which binds him to this physical world, and yet almost every day he sees the poetic statement proven true, that

> "'Tis the wink of an eye,
> 'Tis the draught of a breath,
> From the blossom of health
> To the paleness of death."

But, we think, as time passes, and greater enlightenment on these matters is obtained by the general public, fatalities from such causes will not then be so numerous, and the work of the surgeon, when called, will show better results.

The field of preventive medicine is limitless, and, as yet, we have only begun the task of exploration, and ideas, which we deem to-day worthy of putting into practice, in years to come will be looked upon by those who follow us as very crude and imperfect, for they will have done as we have, improved by the mistakes of their predecessors, else they will not have reached the full stature of their noble sires. For we believe it is true, as the poet sings:

> "I hold it truth with him who sings
> To one sweet harp in divers tones,
> That one may rise on stepping-stones
> Of our dead selves to higher things."

And so it is, we do rise by the stepping-stones of investigation. As a theory or idea is found to be false or imperfect it is placed beneath our feet by the master builder, and we rise one step higher, and are that much nearer the apex of that vast pyramid, whose broad and deep foundation was laid by our professional fathers.

And again is our horizon extended and we see, "not the same that our fathers have seen," but vaster fields of investigation. Like Moses of old, we may never be permitted to enter that promised land, which is so rich in everything that, to the earnest student, can be made to yield ideas, the proper and intelligent application of which will fall like a benediction upon suffering humanity. Ever since the days of Adam, when by his transgression of some one or more of the laws of Nature, and as a consequence the seeds of disease and death were sown, it has been man's constant effort to shun the one, and postpone the other, and to lengthen out the thread of life to its greatest possible limits, for life is sweet to all, and we are willing to accept the cup, and drain it to the dregs, and at last go tottering to the grave, "sans eyes, sans teeth, sans everything." And still on this, the dawn of the twentieth century, as we pause a moment, and, in a retrospective frame of mind, pass in review the many and almost miraculous discoveries made in the medical world, and compare the methods of this century with those of its predecessor, we can not but be encouraged to have greater hopes for the present one. How much better facilities has the physician of to-day to prevent and relieve human suffering than had those who have just passed off the stage of action! How much ignorance and superstition have been dispelled! How many better laws have been enacted to prevent the spread of those contagious diseases, which in the past were present in epidemic form almost continually! How much information has been gained pertaining to the laws of heredity, and the equally obscure subject of insanity, its diagnosis and treatment! What tremendous strides have been made in surgical asepsis!

And yet we can not help but realize that as we acquire greater knowledge there are greater responsibilities placed upon us.

> "Let us then be up and doing,
> With a heart for any fate,
> Still achieving, still pursuing,
> Learn to labor and to wait."
>
> —LONGFELLOW.

ritten for the MEDICAL BRIEF.]

Cause of Malarial Fever.

J. MORRISON, M. D., PH. D.,

Washington, D. C.

(Continued from page 400.)

ne, commonly called marsh gas, the composition of one atom of nd four of hydrogen, is another h results from the decay of car- s matter under water, and is, no factor in causing malarial fever. he simplest of the hydro-carbon ds, is colorless, odorless and but ightly soluble in water. It ith a fairly luminous flame, ng water and carbon di- It is a constituent of coal d when mixed with air in portion of about one to ten, is explosive and forms the so- ire-damp" of coal mines. When n a pure state it is fatal to life, t very noxious when mixed with when it forms four or five per he mixture.

sulphuric acid gas, having the ion of two atoms of hydrogen of sulphur, is another very s gas, sometimes found in palu- lations, especially if any animal s present; but it may be gen- small quantities from the decay containing sulphur. This gas easily recognized by its offensive ich resembles that of rotten eggs. a constituent of sewer gas, and es of coal gas. That these gases, the first, or mixtures of them, chief factors in causing malarial ere cannot be the shadow of a cause this fever always exists in in which these gases are gen- Good drainage, thorough culti- f the soil, and the removal of rests or thickets, so as to allow irculation of air and the admis- the direct rays of the sun—na- reat disinfectant—have always alarial localities salubrious, inde- y of the presence of mosquitoes. dense forests of Africa, Central th America, localities most favor- the production of carbon mon- oxide, malarial fever assumes a malig- nant type.

Dr. Livingston, the African explorer, lost many of his men by malarial poison- ing, and he himself fell a victim to the same cause.

When the French undertook to dig the Panama canal, some thirty years ago, hundreds of the laborers perished from the same cause.

Carbon monoxide, being slightly soluble in water, is carried down by rain into the soil, which, in time, becomes thor- oughly saturated with the gas, and when such soil is disturbed, the gas is again set free, and the inhalation of it, in an almost pure state, causes a violent chill, which ends in a fatal collapse in a few minutes. It was a common saying among those employed on the work that the men digging in the trenches "stood upon their feet and died."

The same thing, but in a far less in- tense degree, happened to many of the early settlers in the western prairie States, when they first disturbed the soil by ploughing, not only along the river bottoms, but on the open prairie itself. The miasmata, set free from the freshly upturned soil, are capable of poisoning the air for miles around. A small frac- tion of one per cent of carbon monoxide in the air would, when inhaled for some time, be quite sufficient to make a pro- found impression on the nervous system, resulting in disturbance of the digestive function, in enlargement of the liver and spleen, and in that general cachetic con- dition known as chronic malarial poison- ing.

Carbon monoxide—the most poisonous element in marsh miasmata—is oxidized, or converted into the comparatively harmless carbon dioxide in the sunlight; but in the night no such action takes place. This is the reason why exposure to night air is so dangerous in malarial regions.

Malaria is never found in the vicinity of extensive pine forests, notwithstand- ing the presence of mosquitoes and the proximity of swamps and marshes. The action of the chemical rays of sunlight on the resinous exudation of the pine needles and of the bark of the young branches, gives rise to the production of

ozone, nature's most powerful disinfectant and germicide. Marsh miasmata are instantly oxidized and rendered harmless by ozone. For this reason, malaria is unknown in the health resorts among the pine forests of the Carolinas, New Jersey and elsewhere, although mosquitoes of the approved breed and all the conditions for generating marsh miasmata abound.

The presence of ozone in the air can be easily shown by any one as follows: Thoroughly moisten a piece of white porous paper in a strong solution of iodide of potassium and then dip it into a solution of starch and expose it to the air. If ozone be present, the paper will become of a blue color, owing to the fact that the ozone decomposes the iodide of potassium and sets free the iodine, which at once combines with the starch, forming the iodide of starch, which stains the paper blue. If there is no ozone present, no change in the paper takes place.

In view, then, of these facts regarding the poisonous nature of carbon monoxide gas, and of the probability of great numbers, not only of the laborers, but also of the officials directing the work on the Panama canal, being stricken down with malarial fever, or with the more dangerous yellow fever—the latter being really a pernicious or malignant form of the former—it is highly incumbent on those in authority to take such preventive measures as science and experience suggest.

In the first place, all those employed on the work should remain under cover of tents from sunset to sunrise. The tents should be large and located on high, dry ground, as far from the excavation and from ravines or marshes as practicable, and if a small fire can be kept burning in the tents all night, so much the better. Any good disinfecting fluid containing free chlorine may be sprinkled freely in the tents, but by far the best disinfectant is ozone, which can be generated by static electric machines.

If one of these machines, which costs only a few dollars, is placed in each tent, and operated for a few minutes several times during the night, sufficient ozone will be produced to destroy not only any carbon monoxide that may be present, but also any other poisonous gas o germs that may be floating in the ai This is the cheapest and most efficien method of disinfecting the air in th tents. At the same time, every on should be provided with a supply c quinine tablets; but better still, with supply of pills or tablets containing suc drugs as act on the liver—say, chionar thin, podophyllin, euonymin, strychnin etc.—for if that organ performs its fun tions properly, there is little or no dar ger to be apprehended from either mal rial or yellow fever.

Mosquito netting may be useful to kee out these pests, but gum camphor, spirit of camphor, oil of pennyroyal, or th smoke from burning pyrethrum rose tum, will be more efficacious.

The water used for drinking should b either distilled or boiled, to remove an carbon monoxide, or other poisonou matter which it may contain.

The land on both sides of the cana should be denuded of forest or jungle fo a quarter of a mile at least, and cleare out by fire during the dry season, fo reasons already stated.

All these prophylactic measures ar quite feasible and easily carried out, wit comparatively little expense.

The mosquito theory of the cause c malaria rests on some experiments mad in a malarious locality in Italy. On portion of an army spent the night under cover of tents, while another po tion remained on the open plain, expose to the night air and mosquitoes.

The former escaped, while many of th latter were attacked with malarial feve which was incorrectly attributed to th sting of the mosquitoes. This is exactl what happened to the British army i Africa, already alluded to.

The mosquito theory is an outcome c the germ theory of disease, and is one c those fads or medical vagaries whic have been the bane of the profession eve since its organization. The history c medicine, from the days of Hippocrate to the present hour, is replete with suc idle theories, which had no real scientifi basis on which to rest, which could no stand the test of experimentation, an finally vanished, like an "iridescen dream."

germ theory of pulmonary tuber- as propounded by Koch and his s, has not only proved to be a , but has given rise to an im- amount of quackery in high The mortality from tuberculosis gh now as it ever was. The ad- ation of tuberculin—a ptomaine it was thought, would kill the microbe or bacillus—has not oved useless, but has sent many ious patients to premature graves. as the treatment or cure of pul- tuberculosis is concerned, no ad- as been made during the last two e decades. The treatment is "*in tatu quo*" it was when the Roman Horace, wrote these lines, more neteen centuries ago:

* * "Macies et nova febrium,
ris incubuit cohors;
notique prius tarda necessitas,
l corripuit gradum."

germ theory of disease is already decline. The treatment predi- hereon has been disappointing. illi found on microscopic examin- ay, for aught we know, be the *re-* d not the cause, of the disease. id phthisis, for instance, no bacilli robes have ever been found, and called bacilli of pneumonia are n the air passages of healthy per- well as in those afflicted with that The presence of tubercle bacilli sputa, may prove the existence of ary tuberculosis, but at the same eir absence, or the failure to find nicroscopically, does not exclude ease, which may be present with- m as well as with them, and the ing is true for all other so-called liseases. The germ theory does tisfactorily account for those c cases of typhoid fever occurring brious localities, or for that pe- form of the same fever to which rs are liable on mountain s. There can, however, be no ut that zymotic diseases, such as l, yellow, typhoid, typhus fevers, ria, etc., can and are communi- o healthy persons by means of r germs, conveyed into the system air, water or food; but to assume inflammations, as pleurisy, pneu- nephritis, etc., or all nervous affections, as tetanus, sciatica, epilepsy, etc., are so communicated, is not credible or tenable, nor has it ever been demonstrated.

Here, for instance, is what one of these distinguished foreign advocates of the germ theory has to say in regard to diseases of the mitral valves of the heart—a disease usually the result of rheumatism, and that the result of faulty digestion:

Dr. De Grazia, in "Reforma Medica," July 8, 1903, says that in five cases of mitral disease, he found the following germs, or bacilli, in the lungs, viz.:

"The staphylococcus albus in all; a variety of diplococci and two other diplococci, similar to the micrococcus of Jaeger-Huebner; the micrococcus tetragenes in all five; the staphylococcus aureus in two; the streptococcus of mucous surfaces in one; the ordinary streptococcus in one; the monococcus in two; the influenza bacillus in one; the pneumococcus of Friedlaender in one; various bacilli in two; and the streptothrix in one." All of which is as convincing as the mosquito theory of the cause of malarial fever. What a flood of light the above sheds on the cause and treatment of mitral disease!

The savant says he will extend his researches which, he thinks, will doubtless bear fruit. We hope so.

[Written for the MEDICAL BRIEF.]

Epilepsy.

BY H. D. FAIR, M. D.,
Muncie, Ind.

At first glance, there may appear statements in this article that partake of the nature of egotism, yet, after careful consideration on your part, I feel confident that the idea will be banished from your mind, for what I know I know as well as anybody, and if I can prove to you that our so-called recognized authorities are not always correct, and that textbooks can not always be relied upon, it does not necessarily follow that I am egotistical.

From my earliest recollection epilepsy had an irresistible fascination for me; terrorizing me in my young boyhood and

intensely interesting me as a student. Because of neighborhood environments I was brought continually in contact with the dread disease and early learned of the universally considered hopelessness of treatment. Long before I had mapped out a medical career I had determined to learn all that was possible to know regarding this peculiar affliction.

My first great surprise came when I discovered how unsatisfactorily, even vaguely, epilepsy was handled by our text-books. No apparent progress had been made, either in diagnosis or treatment, for ages. The meager findings of generations past were handed down as authority, and the conclusions accepted as final. So, disregarding and to a great extent ignoring the teachings of the fathers in medicine, I started out on independent lines and have been well-rewarded for my efforts.

One of the greatest hindrances to an increased knowledge of this disease is the fact that so many writers seem to take it for granted that epilepsy requires the same treatment the world over, no matter what the cause or condition. This is an unfortunate mistake. There may, for a few weeks or months, be some stir when a new remedy is brought to the notice of the profession, but in a short time the general practitioner or specialist falls back on the old standby, bromide.

Of course, in the epileptic attack, no matter when or where occurring, there is great similarity and it is entirely unnecessary for me to go into details and give you a picture of typical *grand mal*, for you are all more or less familiar with it, so I will proceed to the main purpose of this paper.

I noticed a statement in one of our medical journals, written by one of our prominent physicians, as follows: "After all, we have no better treatment for epilepsy than the old reliable bromides of sodium and potassium, either singly or in combination." Now, let me ask whether you think this doctor's statement is true or not. If it is true, I pity the poor, unfortunate victims of the disease.

When I inquire of any physician or set of physicians in private practice, hospitals or asylums, having used this mode of treatment: "What has been your per cent of cures in serious cases? Has it bee seventy-five per cent?" You answer, "No. "Has it been fifty per cent?" Again yo answer, "No," and are finally compelle to admit that it does not reach thirt per cent. Now, to my mind, a remed that gives no better results than that far from satisfactory.

I do not wish to cast reflections on th honest endeavors of any one, nor deci any physician who has done his best; bu when a prominent practitioner, who ma be an expert in other diseases, states tha the old reliable bromides are the best an almost only treatment for epilepsy shows a lack of research, investigation experience that is not justifiable in on who pretends to be authority, or to teac others the way. My standpoint is simpl this: If a practitioner makes a speci study of epilepsy and concludes that the is nothing better than bromide, he is no qualified to treat serious cases; or, if h has *not* given the subject special atte tion, he is not competent to decide an should not allow such a statement to b made public over his signature.

It is a reproach to the profession tha such a statement gains publicity, comin from a supposedly reliable source, uncha lenged. I have more than once been ce sured for expressing my positive views, an even ridiculed by the "follow-your-leade class of physicians; but I can point results, which is more than the most them can do.

I have spent the best years of my li studying this disease, visiting institution where these patients are cared for, an gathering information from every sourc possible, and have been astonished tha physicians who are usually keen to arriv at safe conclusions in regard to the m nute details of every other disease, co sider epilepsy simply as epilepsy, no di ference whether it occurs in a frail chil or a robust man; no difference whethe the spasms are caused by scalp wound in an old soldier, or by disordered me struation in a young girl, the patient dosed with the bromides of potassium sodium until the brain is benumbed b the medicine, if not previously by the di ease. I have treated many patients wh conscientiously believe they have take

of medicine, and whose latter was worse than the first.

firm believer in symptomatology, day become more and more con- at symptoms, and not diseases, treated. This is particularly ilepsy. Of course, not every one fits is an epileptic, and we have ht that the bromides are "good but I have yet to learn of one genuine epilepsy that was ever bromide, and it is with great on that I notice Dr. Spratling, superintendent of the Craig Col- ew York State, who has had a le experience with this disease, actically the same statement.

ime to time, when making the my investigations public, and amples demonstrating my prem- have done in several medical I have received letters of in- n physicians all over the United d Canada in regard to cases in ctice, and many of them became tience when I requested some- nite, the detailed symptoms and fore I could outline a plan of . Now, what does this show? idently thought that climate, x, temperament, habits, condi- environments had nothing at all h the treatment.

never treated two cases alike in ulars and in the last eight years n successful in seven cases out ten. I have no "plan" of treat- d know that my per cent of uld be greatly reduced if I did have my favorite remedies, as e has, that have proved reliable able in these conditions, but positively nothing that will "cure the cause is found and removed. y of illustration I wish to cite vo or three cases taken at ran- n my records, omitting all de-

., of Ohio, forty years old. Had ht to forty convulsions every nd they were hard ones. She mides regularly, always taking she laid down for a nap during otherwise she would have a fit leep. She had been treated for the "best physicians in the coun- try," and spent money liberally, but with absolutely no lasting results. I cured her with one-drop doses of specific tincture sanguinaria, given four times daily, and less than one and one-half ounces did the work.

About six years ago a father and mother brought their nineteen-year-old daughter to see me. She had been having convulsions since she was eleven years old, and they were getting more severe, in spite of the fact that she had taken gallons of liquid from "I-cure-fits" men in different cities and that nearly all the local physicians had a chance at her. The etiology, as given by these men, was wonderful, both as to variety and uniqueness. I secured her personal history and all the facts bearing on the case possible, and requested permission to make a clinical examination, which was promptly refused by the mother, who said, "Many older doctors than you have treated her and never considered an examination necessary." Consequently, I refused to prescribe and they went away. Six months later they brought her back and asked me to proceed in my own way.

I went over her carefully and was about to give up in despair, when in the rectum I discovered a hard substance. When this was touched the girl had a fit in the chair. I had found the cause. An open safety pin had been embedded in the mucus fold of the rectum for more than ten years; a continual source of irritation, especially as she was inclined to constipation. The pin was removed and the trouble ceased; no other remedy being given than a general tonic.

How foolish it was to pour bottle after bottle of medicine into that girl, while the cause was actively present all the time. But, you may say this was an exceptional case. I say it was not. There is always a cause, but we so seldom take the trouble to find it. Time and again a simple operation, doing away with reflex irritation, was all that was necessary to effect a cure. However, there are times when the removal of the cause will not be immediately followed by a cessation of the convulsions. There is such a thing as the fit habit, and it is sometimes necessary to use considerable discretion in order to break up or change a routine

that has been long established, but it can be done.

A sixteen-year-old Pennsylvania boy had averaged two attacks every thirty-six hours for a little more than two years. Being well-to-do, the parents consulted able physicians as soon as the trouble began, but without benefit. The consensus of opinion was that the fits had some relation to puberty. I was asked to see the case in consultation. The family lived on a farm and raised hogs, sheep, poultry and cattle, and had meat on the table three times daily. I ate dinner with them and was impressed by the gluttony of the patient. I later told the physician and the mother that if they would place the boy on a vegetable diet the fits would soon stop. "We can't do that," said the mother, "for meat is about all he eats." I argued for a thirty days' trial. She thought one week would be long enough. We finally compromised on twenty days. I advised a placebo, which was given. There were but two attacks following the withdrawal of meat from the diet. At the end of the twenty days the mother, who contended that the placebo did the work, allowed him to again eat all he wanted, and the fits returned. So long as he avoids meats, he has no trouble at all.

Gaining the confidence of your patient is decidedly essential. As a rule, they are a class who have nearly lost courage, or have been swindled out of larger or smaller sums of money by quacks and newspaper advertisers, who prepare their one kind of medicine in advance, which is to cure the patient in the North, whose trouble was caused by severe fright; as well as the victim under the tropical sun, who is afflicted as was his father and grandfather before him.

When meeting a new case of epilepsy I study it as carefully as if it were the first of the kind I ever saw. I analyze the urine, give the whole organism a thorough examination and inquire into every detail that I think could possibly throw any light on the subject. I seldom place explicit confidence in what the patient tells me, as I have found some of them to be notorious liars. There are times, also, when the testimony of friends is unreliable.

Electricity is an important factor the successful treatment of many case even when it does not of itself cure, aids and assists the indicated remedie General faradization or central galvani ation, or both, may be employed. Son cases need functional stimulation ar others sedation. As a usual thing, th galvanic current, with the positive po on the spine and the negative pole at th epigastrium, is the preferable method.

The great point, however, is the reco nition of the fact that every case is rule unto itself. Let out-of-date precede influence you little or not at all. Obser how the attitude of the profession changing as to small-pox. It will son day be the same with epilepsy.

[Written for the MEDICAL BRIEF.]

Therapeutic Suggestion: What Is It?

BY HERBERT A. PARKYN, M. D., C. M.,
Chicago, Ill.

(Continued from page 414.)

"The method of treatment by which patient is cured is generally the one which he afterwards pins his fait Therefore, when a cure is really made b suggestion, and is credited to some oth agency, the faith aroused is a false on Far different is it with a patient cure by 'directed suggestion.' He understand exactly why and how he has been cure He learns to observe a number of Nature important laws, the effect of the min upon the body, the control of his thought etc., and it is a rare thing to find an i telligent patient seeking relief a secon time, for a trouble of which he has one been cured by suggestion."

As stated before, we receive all in pressions or suggestions through th senses, and these impressions may u consciously interfere with or assist bodil functions; for instance, the sight of horrible accident or a disgusting scen will frequently retard digestion, or na sea may result. A disgusting sight or u inviting looking food may instantly r move a splendid appetite. Pleasant scen and bright faces, the sight of good foo etc., will remove unpleasant thought make one feel happy, and stimulate app

digestion. The sight of a deli-
ses the saliva to flow. Through
e of hearing, news may be re-
which may depress and produce
ause worry, grief, nervousness,
of these conditions will remove
ite, and retard digestion, or pro-
niting, and sometimes diarrhea
yuria. Good news, inspiring
right stories, cheerful voices, etc.,
ove depression, assist digestion,
te an appetite. Some odors call
easant memories, which produce
ng lines of thought, while others
ay be obnoxious enough to nau-
remove an appetite. On the
nd, the odors from some flowers
happy, and a savory odor from
will often stimulate an appetite
y dull.

few illustrations demonstrate
hat we continually receive many
ble impressions, which, if re-
the active mind for a time, are
interfere with the process of di-
or by destroying the appetite, in-
with the amount of food usually
d. In either case, the amount of
nent would be diminished, and
ne line of thought of an individual
a mental condition be changed,
l likely become a nervous dyspep-
onstipation would likely follow,
ion would become imperfect, and,
ervous prostration and insomnia
y result.

harles Gilbert Davis, of Chicago,
luable article read before the
Congress, at the World's Fair,
at he believes nine-tenths of the
hich the human race is heir, are
ct or indirect results of an out-
onscience.

owledge of suggestion enables the
n to discern the influence a pa-
nind has upon his health, and in
ase to secure its intelligent co-
n.

tain the best results from thera-
uggestion, a thorough knowledge
omy, physiology, chemistry, path-
nd diagnosis is necessary.

orce which heals a man is within
and when understood may be con-
by himself; and just as the activ-
he propelling force within a man
who walks a mile is stimulated or depressed by the nature of his thoughts, so, also, will suggestion, when properly directed, arouse the healing force within man, and on the nature of the suggestions given will depend the extent to which it is aroused. Many a patient has lived for days after the "physician's allotted time" expired, sustained only by some stimulation of his vital force. For example, an intense desire to see some loved one, hastening to bid farewell. It is often this remnant of vital force, which, when intelligently directed by suggestion, suffices to arouse into activity some organ which for a long time has been hopelessly dormant, but which, when aroused, enables the patient's internal organism once more to resume its normal action, and draw him back from the very jaws of death.

Some of the conclusions which may be drawn from the facts mentioned in the above article are:

That the vital force which heals a patient is within the patient himself.

That the vital force is generated within the patient himself, by the digestion and assimilation of food.

That the amount of vital force generated depends on the quantity and quality of food introduced into the stomach.

That anything which will interfere with the necessary supply of properly selected food, or the digestion and assimilation of food after it has been received by the stomach, will interfere with the generation of the vital healing power.

That the digestion may be retarded or completely stopped by certain mental states.

That the food supply should be regulated by a correct knowledge of the requirements of the body.

That knowledge is stored in the mind, and that mind is created and influenced entirely by suggestion.

That the creation, expenditure and control of vital healing force are directly or indirectly dependent upon suggestion.

That if one would intelligently direct this healing force, he must have a thorough knowledge of the effects of suggestion. He must understand the simple means for ascertaining the individuality

and suggestibility of his patient, so that he may determine in advance the mental and physical effect any given suggestion is likely to produce.

4020 Drexel Boulevard.

[Written for the MEDICAL BRIEF.]

Parisian Medical Chit-Chat.

BY THOMAS C. MINOR, M. D.,
Cincinnati, Ohio.

Peter and the Clinic — The School of Lyons—Tuberculosis—Robin and Kelsch—Endemic Diseases of Japan—Japanese Students.

In 1890, the great clinician, Peter, observed: "We are in a period of experimentation where the laboratory wishes to replace the clinic and seeks, by means of the guinea pig, the secrets of therapeutics in men. This excess of bacteriology will most surely lead us back to full clinical observation."

This medical foolishness still persists, but its wings are filled with lead.

The school of Lyons has instituted a very useful department of hygiene. The pupils in their third and fourth years, have grown skilled in three years. How is that, you inquire? Under the teaching of Professor Courmont they do the following work: Chemical analysis of the air, bacteriological analysis of air, investigations in the Eberthe bacillus, the colibacillus, choleric vibrion, etc.; investigations in waters, hematozaires, mosquitoes, anopheles, trypanosomes, etc.; studies on ventilating and heating apparatuses; experimental work on the toxicity of alcohols, essences, etc.; researches in animal tuberculosis; analyses of flour, wine, milk, butter, cheese, preserved meats, etc.

These poor young doctors have not a moment's time to study the sick. They see no patients. They give prizes in this highly scientific school (?) to all those who discover spider-webs in the brain—medical spider wébs.

You will see at this school young men with the talents of the mocrographer, engineer, chemist; as for doctors, they have none who cure diseases. They let this class of so-called medical men loose on the poor of the community, to experiment and practice there in order to learn their medicine. They must have a diploma *de omni re scilili*. They must know everything except real medicine. Happily an awake ing came. Robin and Kelsch proposed, tuberculosis, to take the declarations real doctors, and not those of the ba teriologists. They have proved to th satisfacton of thinking men that here where the real domain of medicine hold without bacteriological credulity an charlatanism. On the other hand, whe the science of real medicine holds its en pire, they know the real hygiene, privat and public as well. Charlatans in th regular profession are numerous. The abound especially in the laboratory. Me without practice, on a salary, who dia nose disease with a microscope alon Never mind their fallacies, their foolis ness. The true physician is not alway on the lookout for some unknown me theoretical microbe; not that he does n admit that certain organisms of an i constant kind are observed at times, but h knows such organisms can not exist wit out a proper soil to grow in; a morbi predisposition. That is true medicin Professor Robin has first victorious established that the discovery of th famous bacillus of Koch, by abandonin clinical medication and replacing it by s called antiseptics to destroy the microb only caused deception, for it is one thin to kill microbes under a glass and anoth thing to attack them in living tissues.

The bacteriologists followed a wron path. The bacillus of Koch is harmle if it does not meet a proper soil in th human organism. The Koch bacillus ma be found in the most healthy people.

Always the assailant and the assaile Give strength to the assailant. To th assailed give pure open air, good foo and the clinical remedies used by th fathers of medicine, those remedies tha experience and time have shown to b most valuable. Dante placed in the mout of Saint Thomas those beautiful words o which all good souls may well meditate "Let the errors of the past serve thee f a lesson and do not fear to tread wit slow steps."

Let us pass to the inspector of ou armies, Dr. Kelsch. He does not den what is called contagion of tuberculos in the army, but holds that the invasio by the bacillus is insufficient if it has n the consent of the organism. To him, co

oes not play a great part in tuber-
n a regiment of soldiers. Phthisis
troops is almost constantly the
an auto-infection rather than of
l of direct contagion.
lmost always the feeble soldiers
attacked, like the more debilitated
s in jails, and the cause of such
rest more in poor food, the work
improper barracks, change of
life, with rigid discipline, rather
microbes. All that engenders a
change in the organism, dimin-
e resistance of the soil. Doctor
with a long practice of thirty-
rs, and an immense experience,
s that if the army rations are in-
the barracks built on better hy-
lans, the labor lightened, and
e in the open air, the present tu-
conditions would all be changed.
then, the basis of the prophylaxis
culosis is the development of phys-
or in man and the amelioration
ygienic and social conditions. So,
, the bacillus of Koch counts for

will not prevent the Germans from
to attenuate the bacillus of Koch
ures on cold-blooded animals.
n experimented on turtles, Her-
frogs. This is Teutonic medical
with a vengeance. Poor, cold-
animals!
ersonal observations of over forty
rrespond with those of Kelsch. We
vo consumptives, one aged eighty-
ars, we have taken care of for
ears, and she still lives in fair
The second, aged sixty-six years,
still improving in health. Both
ases have profuse expectoration,
r since the Koch bacillus was first
heir sputum, after examination,
wims with the deadly microbe of

l physicians," says Rabelais, "give
n attention to the prophylactic and
ative parts of the art, that they
tle need of therapeutics or cures by
es." Let us laugh a little. We
"Panache," a comedy by Goudinet,
od to prevent the depopulation of
es—a method that we dedicate to
re Roosevelt and Der Kaiser Wil-
"Obligatory marriage, with divorce

for unfruitfulness. Let the world have fruitful husbands who may serve it on numerous occasions." The Mormons of the southwest United States will presently outnumber the Gentiles because the former propagate their species as a duty under the best of sanitary conditions, while the Gentiles are given to abortion and the sexual crimes of matrimony.

"*La Revue Medicale du Canada*" contains an interesting article on the "Endemic Diseases of Japan." We translate the following excerpt:

"There are only four contagious diseases endemic in Japan, but three of them are important, *i. e.:* leprosy, small-pox and syphilis, and an ulcerous affection called *Ka-sa.* Leprosy prevails in all portions of Japan as well as on the Island of Nippon. As in the extreme Orient, it has prevailed from most ancient times. It is the poor and lower classes that suffer, as will be noted by the numerous beggars one meets, eaten by leprosy, along the public roads from Miaco to Yeddo. Many of these persons have almost lost the resemblance to humans. Their physical condition is worse than the patients at the Sammarang and the Chinese Leper Hospital of Batavia.

"Nevertheless, leprosy is less spread in Japan than in Java and Sumatra. There is about one leper to every ten thousand inhabitants, which represents about thirty-five hundred cases in a population of thirty-five millions. Leper hospitals, such as were known in Europe during the middle ages, are entirely unknown in Japan.

"Although the Japanese know full well the first symptoms of leprosy and the terrible affections that ever follow its primary manifestation, they give it little attention at the commencement. Persons slightly affected still cohabit in their families and follow their usual avocations. It is only much later, when the malady is fully developed, that they seek isolation or live by themselves, often keeping to their own private rooms. The beggars whom we mentioned, having no means to sustain themselves, are banished from society, leading the sad life of mendicants, without any aid from the Japanese Government. Some of them live in caves and holes dug in the ground, covered by straw.

When they hear some passer-by on the high-road, they pop their heads from the hole and beg alms. They are absolutely naked and so deformed as to crawl on all fours, like animals. They act like wild beasts.

"Small-pox has existed in Japan from times of most remote antiquity. According to Japanese authors, it first appeared about the year seven hundred and thirty-five of our era, and has remained endemic to the present day, manifesting a ravaging epidemic tendency at certain periods. It was introduced to Japan originally from Korea, where it has been endemic since 626 A. D. In Japan, the most violent outbreaks occurred in the years 790, 833, 904, when the islands were devastated by the disease. In the nineteenth century, the worst outbreaks of small-pox were in 1803, 1848 and 1849, and the Island of Nippon was almost made desolate. The Japanese think one should have the malady at least once in this life. In some Japanese provinces it is the custom to place those attacked in some retired mountainous place, there to remain until such a period as they are cured. This isolation plan is ever followed by good results. The public in Japan is informed of the presence of small-pox by a bamboo bow placed over the door sill. The Japanese Government pays little attention to the malady, cure, or for vaccination, or rather, innoculation. The Chinese and Japanese claim to have known the method as far back as the year 1014 of our era, while in Europe it was an eighteenth century discovery. A curious fact—the Japanese, until very recently, performed vaccination on the end of the nose.

"The introduction of true vaccine lymph from the cow met with great opposition in Japan at first. It was introduced there by the Dutch, and had no very good results in their hands. It was not until 1848 that the best results were obtained; since which time the employment of vaccine lymph has given satisfaction to all those who cared to employ it as a method of prevention.

"Syphilis was introduced in Japan by the Portuguese in the sixteenth century. It is to-day widely spread throughout Japan and as prevalent as in Europe. The Japanese make no mystery of it and a tach but little importance to the malad Despite the incompetence of most of t Japanese physicians, there are rare any tertiary consequences of a serio nature. Syphilis in these later years Japan has grown to be a milder affecti than the form observed in Europe. T healthful climate of Japan may ha something to do with this. A very hi temperature constantly never lessens t gravity of the malady. For example, Java, the affection is much more serio than in Japan. Japanese doctors, w are ever very boastful, deplore the ign ance of the native physicians of Jav One must admit, however, that nati Japanese doctors are more learned th those of Java, who are known as *Do kons.*

"In Japan the air is always pure a but very slightly charged with humidit although it rains frequently. An atm phere filled with sea water vapor acco panied by high temperature is partic larly unfavorable to the treatment syphilis. In Europe, the proof of this shown at Venice, a city located amo marshes, and a place in which syphilis never cured, and Venice has some of t most skillful medical men in the wor The syphilitics of Venice who desire be cured know full well that they mu leave there and retire to the heart of Its for perfect treatment.

"Regular medical visits to prostitut do not exist in Japan, except in certa locations. Each house of ill-fame has own particular physician to attend to t sick girls. Even this measure preven to a limited extent, the spread of syphi and other venereal disorders. Let us a another measure used in the pub houses of Japan, *i. e.*, in these hous 'Zgoloja,' and the tea houses 'Tsja j are to be found the only prostitutes lowed. There are no resorts or clandestine places. Even the young actresses a watched by the police. These actress 'Seko,' and the dancers, 'Odoriko,' a prevented from falling, if possible, there are doubtless a certain number th escape police vigilance. In Japan, even the great cities, there are but few wom who live by themselves and are kno prostitutes. There are no kept women

the European sense of the word, nese public morals permit a man several women, beside his wife, in se, but Japanese morality will w a man to keep women outside domicile. The police watchful- r such matters in Japan is not ny moral sense, for the Japanese ne, nor is it due to hygienic Its origin is exclusively politi- Japan, public houses are part of e department. They serve it to eir various people behave in their f abandonment. Each visitor to house in Japan must sign his or e on a register, together with the e, and a penalty is attached for istration. In Japan, the majority ts, criminals, etc., etc., are found places, and the public women, spies, turn such offenders over lice.

ourth endemic malady in Japan agious malady called 'Ka-sa.' It in spring time among all classes y. It affects both sexes and peo- l ages. This, too, with the fact Japanese are a very cleanly peo- es the disease worse. There is eruption that often becomes an ry difficult to cure. The *osarus* very distinctly observed by the e in some forms of this affection. anese know full well how to take and pick out the sarcoptus at noments.

apanese constantly eat all sorts of h, as well as salt and dried fish. e many crustaceæ as well as es, while their winter vegetables lmost exclusively of salted ones, radishes and cabbage. This spiced food is much favored by anese and is apt to develop s maladies in general and forrizes n particular. This fact is proved, the reason generally assigned, se skin diseases appear in the nd always after several months eating salt fish and salt vege- xclusively. Then, too, the Japan- e daily in water of such a high ure that no European could it. The Japanese men, as well as never have a clear, fine skin. They are subject to all manner of discolorations, most of them having some eruptions."

408 W. Fourth Street.

[Written for the MEDICAL BRIEF.]

Pneumonia.

BY J. D. WEDDELL, M. D.,
Kansas City, Mo.

I was very much interested in what Dr. E. B. Pennington, of Mohawk, Tenn., had to say on the subject of pneumonia in March MEDICAL BRIEF for 1905.

He says he is amazed at the mortality of the disease. So am I, but not any more than I am amazed at the opinions of some men who are considered high up in the profession; teachers in our best medical schools; men who are looked upon as "authority." I do not know how these men of "authority" treat the disease, but I quite agree with Dr. Pennington, that it is one of the easiest to treat successfully. The intrinsic tendency of pneumonia is to recovery, and whenever I hear of a death caused by it, I always think they would have recovered if they had been given a chance, unless it was in a very weak and debilitated subject. I believe the mortality is greater now than it was years ago. Is it because of the improved (?) methods of treatment? If so, why not abandon it and adopt something more rational and successful? As Dr. Pennington has said, the men of the profession have gone off after fads and have not yet returned. If the serum treatment is the correct thing, why do so many people die? Why follow a line of treatment that sends so many of your patients to the undertaker?

I have practiced medicine thirty-three years; twenty-four years in the country, and nine years in this city, and during that time I have had three patients die who had pneumonia. The first occurred at the end of the second week in a case of typhoid fever, and I am unable to say whether death was due more to the pneumonia than the typhoid fever. The second occurred in a maiden lady forty years of age; very weak and frail. She was taken down with a severe attack of la grippe and pneumonia of both lungs.

The third occurred in a young man about thirty years of age, who was suffering from diabetes and pulmonary tuberculosis; a mere skeleton. He was taken in Chicago with a severe attack of la grippe and pneumonia, and came to Kansas City before consulting a physician. The disease invaded both lungs. Except in a very weak and debilitated subject, I never have any fear of a case of pneumonia dying.

I know this will be looked upon by a majority of the profession as a great boast, and perhaps by many, as a great big lie, but that will not alter the facts in the least, for what I have said is true. This is no assurance that I never will lose a case, other than the kind I have described; I simply say that I have lost none.

I will give a general outline of my treatment which has given me such good results. First, give a sufficient amount of calomel to stimulate the liver and move the bowels. For the first two days, I usually give lobelia in sufficient doses to impress the system, with tincture aconite in minute doses, frequently repeated to keep down temperature. If patient has a weak heart, give digitalis from the start. I use hot turpentine stupes to the affected lung until the skin is reddened; then omit for two hours and begin again, and keep it up for twelve to twenty-four hours, according to the severity of the case. Keep the chest enveloped in flannel throughout the course of the disease. Give some form of opium to relieve the pain. In the second stage, give an expectorant containing carbonate or muriatic ammonia and tincture digitalis. Do not omit the digitalis, and do not be afraid of it. Digitalis has given me better results as a heart sustainer than anything else, and to sustain the heart is one of the main features in the treatment of pneumonia.

Never, under any circumstances, use poultices; they are heavy, and they embarrass respiration, and can do no possible good. Keep the room well ventilated, and at a temperature of 65° to 70° F., and give plenty of concentrated nourishment, and your patient should be on the road to recovery in five or six days. I have had complete recovery take place in several cases in four days. Treatm must be varied to suit each indivi case. I never use quinine, except in s cases during convalescence, in tonic do

621 East Thirty-First Street.

[Written for the MEDICAL BRIEF.]

Hitch Your Wagon to a Microb

BY LEWIS C. POTTER, M. D.,
New York City.

Young man, Emerson has said, h your wagon to a star. By all means so, and if you study medicine, hitc also to a microbe, if you can. Mak team of it and much will be forgi There may be a germ of thought in

How many struggles we have seen, enmities engendered in the vain deavor to hitch the aforesaid wagon some particular microbe, and the me old thing was not worth bichloride enc to destroy it.

If you are fortunate enough to fin sturdy old pathogenic microbe, and hold him long enough to blow your n on his back, he will pull your wagon your heart's content; while your ne bor's automobile is twenty miles f home with the boiler "busted."

Some men are like microbes. T seem pathogenic, but when you rais brood by culture they are absolu innocuous.

The moral of all this is, I suppose, the littlest things in life are oftenti the biggest.

2420 Seventh Avenue.

[Written for the MEDICAL BRIEF.]

Common-Sense Antitoxin for Diph eria, Laryngitis and Tonsillitis

BY J. W. M'GLAUGHLIN, M. D.,
Wilson, Ohio.

℞ Menthol ..... 2 drac
Chloral Hydrate ..... 2 drac
Gum camphor to fill an ounce wide-m bottle, pressed in solid. Carbolic acid, qua sufficient to cover all; let stand until dissolv

M. Sig.: Ready for use, apply on swab e three hours, rub on outside of throat over ton Give internally one to ten minims, as to age or three times a day, or hypodermically; b generally leaves a sore arm.

I have used it in diphtheria, sca fever, tonsillitis, and I have not lost case in over fifty in which I have use Try it, brothers.

[Written for the MEDICAL BRIEF.]

Questions of Interest to the neral Practitioner Regarding Prostatectomy.

BY M. R. BARKER, M. S., M. D.,
Chicago, Ill.

family physician, in the great ma- of cases, first sees, prescribes for vises these cases. They may seek at the onset of enuresis, or they stpone until total urinary obstruc- kes place, and are, as a rule, ignor- their true condition. Before the of prostatectomy, the physician t one course to pursue. Pass the r, relieve the patient and teach e of the same to him. Then fol- the catheter life, at first inter- but later continuously, with its ble train of bladder and kidney s and consequent invalidism, ren- the declining years of these old n many cases, almost unendurable. ere is now a better way. The phy- has a brighter hope and a fairer t to offer these sufferers. But is e to this? Does he fully compre- his truth? Or is he floundering quagmire of doubt, and for reason , withholding the advice his pa- so much need. It is the object of per to elucidate as much as possi- operation of prostatectomy, and e faithfully what may reasonably ected from it, neither emphasizing ongly the good, nor attempting to the bad. Sometimes the examin- of these cases is mystifying, and o a doubtful diagnosis. This is the following: There are three t forms of hypertrophied prostates. rge, soft variety, due to hypertro- the muscular tissue of the gland, over-cell growth. The mixed va- ue to a hypertrophy of the muscu- d fibrous tissue. This is much than the preceding. These two es are most common. The third due to hypertrophy of the fibrous This is the smallest of all, and ard. The physician would proba- ve no trouble in assigning the f the patient's trouble to the pros- all of the tissues of the gland are enlarged, but this is not always true. The irregular outline of an enlarged prostate is well known and is due to the unequal enlargement of the tissues of the gland. Enuresis, or a complete stoppage of the urinary flow, may be due to the enlargement of a lateral lobe, or to both lateral lobes, or to the enlargement of a median lobe, or a median lobe with one or both lateral lobes.

The whole trouble may also be due to a fibrous band encircling the urethra at the neck of the bladder. Hence, upon examination the physician may be misled by finding a much smaller mass than he had expected to find. If, however, he finds some enlargement, or perhaps nodules, and there is not a urethral stricture (rare at the age of these patients), he may be very sure that the cause of the trouble lies in the prostate. The variety of the hypertrophied prostate, in any case, has some bearing on the prognosis, in case of prostatectomy. The small, hard gland can not be enucleated. I mean by this it can not be shelled out of its capsule. It must be removed by morcellement. This requires more time. There is more hemorrhage and traumatism consequent upon this operation than with the other varieties. For reason of this, the unfavorable conditions hereinafter mentioned, are more liable to follow in this class of cases.

When is this operation indicated? It is a well-known fact that hypertrophy of the prostate is a slowly-developing condition and that in every case, before obstruction to the urinary flow is caused by it, the trouble has existed for a number of years. There is never any hope that it can be cured except by surgical measures. These facts, together with the well-known disasters that inevitably follow catheter life, should impress one that the operation is indicated as quickly as the disease is discovered. The patients at this time are usually in such condition as to reap the best results from the operation. Is the catheter then to be discarded in these cases? The physician must relieve his patient with the catheter and continue to do so until the patient can go to a hospital for the operation. The patient should not be taught the use of the catheter at all. This should be the rule; of course

there are some exceptions to it, but they should be very few. If once taught the use of the catheter the patient will continue it, and not only bring upon himself years of suffering, but lose the best opportunity to have his trouble removed.

Among other important questions which interest the physician, whose advice is sought in these cases are the mortality following the operation, and the chances for complete recovery if the patient survives. Workers in this field have from time to time, during the last six years, made estimates of the percentage of mortality by taking the cases operated upon by the surgeons of the world, using all reported cases. The mortality thus estimated has steadily decreased from ten per cent to, at the present time, about five per cent. These estimates, we must remember, have not been based upon the work of specialists in this line, but upon the work of all general surgeons and specialists together. The reason for the reduction in mortality is due to the better condition of the patients when presented for the operation, and the improved technique which time and experience have produced. I believe we can reasonably expect when patients have the operation when the disease is first discovered and they are in the best possible condition, the mortality in these cases will not amount to more than one per cent.

As to complete recovery. From the reports of surgeons over the world, complete recoveries, within a month, result in about seventy per cent of the cases. By this we mean: The patients have recovered from the operation with control of the bladder, having no residual urine or other urinary trouble. In other words, the conditions for which the operation was done have been met by the operation in seventy per cent of the cases in a month. Of the other thirty per cent the greater proportion of them are troubled with incontinence of urine. This is probably the greatest trouble to the greatest number. But all of these patients recover from it, but not all within a month. Some are troubled, more or less, for six months, but these are very few. Hardly any complain of it after the third month. The trouble which is next to this in frequency, is perineal fistulæ, the opening in the membranous urethra through which the prostatic tractor is passed into the bladder failing to completely heal within a month. The patient has control of his bladder, but at the time of micturition a small quantity of the urine passes through this fistulous opening and out through this perineal wound. These, however, all recover within three or four months. In my last seventeen operations I have been able to overcome this by draining the bladder for two weeks, immediately after the operation, by means of a catheter passed through the penis into the bladder and retained there. This catheter is changed every day for a sterile one, and is as large as can be used. The bladder is washed and treated as indicated in each case, through this catheter. By this method the urine never passes through the perineal wound, and a fistula is not formed. This catheter has other advantages. It keeps the patient, dressings and bed unsoiled from the dribbling urine. A few cases of recto-urethral fistulæ have been reported; only a very few, however; possibly due to undue traumatism in doing the operation, causing the rectal wall to slough.

A few cases of epididymitis and orchitis have followed the operation, but all have yielded to the proper treatment of those troubles without undue delay. The question of the virility of the patient, after the operation, is always to be considered; though in nearly all cases a subordinate one. If the patient is in vigorous manhood, the question might seem to him a serious one, and he might choose the catheter life, and seek the operation after this had failed. It is unfair, however, to charge the operation with the sterility of these patients. The operation only removes from the body tissue that we have a right to suppose, in many cases, has been functionally removed by disease long before, and that sterility was as complete before the operation as after.

Very much time and thought have been spent trying to devise a method of operation that would enable the removal of the prostate and not interfere with the anatomy of the sexual system to the extent of causing sterility. There has been no demonstration as yet that these efforts

cceeded. It is true that for reason endeavors the operation is now ormed that erections, coitus, and ions are the rule with these pa- fter the operation. But so far, no s been reported to have repro- fter the operation. The destruc- a greater or less portion of the urethra is almost certain with oval of the prostate body, espe- ith middle-lobe involvement, and is the ejaculatory ducts must be d to a certain extent, no matter ethod the operator may use. Then nt it would be overstepping the of reason or fact to hold out to atients the hope of reproduction eration.

bjections to the operation that were ged, that stricture of the urethra llow the operation, have not been Ample clinical experience has hat stricture does not follow the n. When a portion of the roof rethra is left, it is easy to under- ow the normal membrane may reproduced from this. But when section of the whole circumfer- the prostatic urethra is destroyed, metimes is, it is not so easy to for the good part Nature plays estoration. It is probable in these at the torn ends of the urethra ght nearly into apposition by the g of the walls which surrounded state and unite, thus forming a with its normal walls. The above ns, resulting as above stated, are hich the physician may consider ing prostatectomy. In summing and magnifying them as much ble, the unpleasant things dwindle gnificance which follow the oper- mpared with the dire results en- the disease, which the operation . Other questions besides the ten have to be considered by the n before advising the operation. nt among these is the age and n of the patient. Age, however, should not be made too promi- ge is only relative. Some men of re younger than others at sixty. our best results was in a patient vo years old. A man of eighty ve a better prospect of living ten more years than a man of sixty has. The old, decrepit, feeble man of eighty would not be a good subject for the operation, neither would the man of sixty under similar conditions.

A patient suffering with marked kidney lesions, or with diabetes, or malignant trouble, should be given the same consideration as in any other proposed surgical procedure. Extreme sepsis, due to absorption of residual urine, is not a contraindication for the operation. A patient of mine sixty-eight years old had all symptoms of sepsis; chills, fever, sweats, loss of sleep, cystitis marked, constant desire to pass urine, catheter life for eight years. I tried to pass a catheter, but could not. I then tried to pass a filiform bougie, but failed. There was almost constant dribbling of urine. The patient was only a shadow of his former self. This was his condition when I first saw him. I took this patient to the hospital at once; made a suprapubic cystotomy, with cocaine anesthesia; drained the bladder, washed it out twice daily, and at the end of two weeks removed the prostate through a perineal incision. This patient made a complete recovery and has remained well ever since. This was six years ago.

Another patient, over seventy years old; catheter life for six years; history of cystitis a number of times. I saw this patient during an attack of senile pneumonia. He was suffering with sepsis and cystitis. They had been using the catheter, but the time had come when they could not pass it, and there was complete occlusion of the urethra. I took this patient to the hospital when so feeble he could not turn over in bed without assistance. I opened the bladder through a suprapubic incision, drained and washed it. The patient improved for four days, when symptoms of the pneumonia returned and he died. I am sure even in this desperate condition this patient would have recovered if the pneumonia had not returned.

I simply recite these cases to show what can be done in cases of sepsis, due to absorption of pus-ladened residual urine. Not at all that I approve of allowing these patients to get into these extremes, in the light of our present surgical triumphs in

this disease, without showing to them a better way.

Complications.—The most common and distressing of these is cystitis. This complicates every case sooner or later after catheter life begins. Though it is true that patients become in a sense immune; in other words, many of them use the catheter for a long period of time with impunity. They do not infect themselves because of their vigilance in observing antiseptic precautions, because they do not do this, but they have become, as it were, immune. This immunity, however, only lasts a variable time. All become infected, and cystitis is the invariable rule of catheter life sooner or later. The advent of this complication dooms the patient to suffering the rest of his life, unless relieved surgically.

Kidney troubles probably stand second as complications. They are usually secondary to cystitis, though this is not an invariable rule. Vesical calculus is not an infrequent complication. The conditions most favorable for the formation of these calculi are found in the residual urine of these patients. It is always accompanied with a more or less marked cystitis. It is difficult for one who has witnessed the suffering of these patients, when cystitis and sepsis complicate, to discuss them with moderation, or think of them calmly. Yet we have tried to maintain our equanimity and discuss the favorable and unfavorable phases of the subject with equal candor.

These patients are seldom emergency cases, hence they can be individualized and the preparation for operation applied in each case as best suits it. This is very important. Upon the proper preparation of each case depends largely the success of the operation. The operation must sometimes be preceded by treatment for some time. For instance, the cases we have cited. If there is cystitis and sepsis present the patient can not be put in condition for operation until they are relieved. Any condition that can be removed or modified, that may add to the hazard of the operation, should be dealt with before the operation is done.

Different operators use different methods for doing the work. And different instruments have been devised for aiding the operator. I have always used the i verted U perineal incision. It gives t maximum of room, enables the operat to see every step of the operation, a enables me to best meet the three esse tials in each case, viz: Time, the mi mizing of hemorrhage and the least p sible traumatism. I have devised a pr tatic tractor, which I use in preferen to any other, and with great satisfactio After the operation, not one jot of t alertness of the surgeon is to be abate Complications may arise at any time, f the first few days, requiring prompt a tion. While these complications are n common, yet the fact that they do appe should keep the surgeon ever watchfu We have only hinted at the technique the operation in this paper, and have on mentioned in the briefest manner t after treatment of the patients. The p per has not been prepared for surgeo alone, but for the family physician, gi ing him an idea of what he may reaso ably expect for his patients from t operation of prostatectomy. The abo observations are based upon the expe ence of the author, in thirty cases, a upon the published records of other su geons. In my cases I have not only do the operation, but have prepared t cases for the operation, and taken ca of them personally after the operatio I have lost one case, the one above d scribed, who died from pneumonia wh being prepared for the operation.

4625 Greenwood Avenue.

[Written for the MEDICAL BRIEF.]

"What Is Suggestion?"

BY AXEL EMIL GIBSON, M. D.,

Los Angeles, Cal.

Reply to Dr. A. A. Lindsay's Paper, Publish Under the Above Heading in MEDICAL BRIEF, January, 1905.

Suggestion, when taken in its technic sense, stands for a phase of mental th apeutics, by which personal influence m be transferred from stronger minds weaker, while the powers of judgme and volition of the latter are held in te porary abeyance. And as the same defi tion holds good with regard to hypnotis it follows that in principle and essen

o processes are identical, and that tion simply means hypnotism ap- o definite therapeutic ends.

is paper referred to above, Dr. y describes a case of moral de- which he cured by "developing an hypnotic subject upon which be demonstrated every phase of l suggestibility, such as the re- of the sense of pain, producing sy, and also show the various phe- of hallucinations."

these statements it would cer- appear that as far as Dr. Lindsay erned, suggestion and hypnotism constitute different names for l processes—a circumstance which rably simplifies matters, as dan- volved in the practice of the one, e involved in the other.

ubstance of Dr. Lindsay's paper is ption of the certainly painstaking of the author in his finally suc- effort to cure a young man from ness, gambling and bad habits in

r, so good. The young man is enjoying the victory over sin and hich the unremitting labors of his n won for him. It is the old, ed and questionable doctrine of s atonement again brought into his time under the auspices of science and scholarship.

o the processes of natural evolu- nction results which are brought y vicarious atonement, *i. e.*, by the some entity reaping the harvest y another? Is it not true that throughout all her operations lentlessly enforces the law of the l of the fittest; not only on the l plane, but likewise on the men- moral? And this because of the at it is only in the high efforts in a life-and-death struggle, that rvival value, with the attendant tation of character of each indi- is rendered possible. Any degree ngth and beauty, present in the of natural evolution, have be- ossible only by virtue of a struggle stile environments.

as the great ever-present aim of n is the formation of character, ven at the expense of form and structure, it follows that any interference, removing the means by which such an end is to be made obtainable, so far from benefiting the entity, leads to its ultimate failure of holding its own, in the relentless advance of evolution.

Our first inquiry into the real nature of Dr. Lindsay's suggestion-cure would naturally concern the character of the changes brought to bear in the young man's moral evolution. Virtue, like the strength of Siegfried in Niebelungen, springs from a slain dragon; a thought which Maurice Maeterlinck, in one of his later essays, expresses in the question: "Show me a virtue which is not a transposed vice?" Or, in other words, out of the struggle between the moral consciousness of the individual, and the temptations held out to him by his environments, proceeds the unfoldment of character.

Hence we must avoid making the mistake that external ease and freedom from friction constitute the *sine qua non* for inner growth. For may it not rather be that moral storms means moral growth, what physical storms means to the trees in the forests of the North? Conditions and methods by which strength, adequate to the individual resistance put forth, is added to the nature of the successful struggler.

Thus, from the standpoint of evolution, there is nothing illogical or immoral in the thought that the environment from which Dr. Lindsay removed his patient, by the very terror of its extremes, must sooner or later quicken his moral nature into healthy action, as the invincible logic of evolution points to the alternative, ultimately facing dissipation—individual restraint or dissolution.

For no man on his career to degeneracy is left without repeated opportunity of conscious choice. A religious tract stuck into his hand, a word of warning from some street preacher, the constantly recurring examples in the commonwealth around him of civic and moral decency constitute guideboards, flaring at the individual from every cross-road, and from which at some time the truth of life shall strike knowledge—self-conscious knowledge—into his bewildered nature. And, on the other hand, as long as the soul of

the transgressor fails to heed and respond to these moral appeals, the fact is plainly evident that he has not yet reached that stage of retrogression where the pains and agonies of an outraged moral and physical nature have succeeded in arousing his sleeping conscience to the seriousness of the situation.

The practitioners in hypnotism, failing to recognize man's evolutionary necessity, rushes headlong in on the scene. To save his man from the impending danger of wandering astray, he bandages his eyes, not realizing that just such a measure will prevent the thus treated individual from finding a safer road for the future. Everything is made smooth and easy. The moral heights he was to climb he is led around, or carried over in a litter; and the estate of peace which he set out to conquer is given to him free of charge and effort; to occupy, not as king and sovereign, but as slave and beggar. From a hero, wrapped in adventurous strife, he is transformed into a moral eunuch—safe from vice, but also safe from virtue.

And Dr. Lindsay proceeds to relate how through his hypnotic suggestion he blunts the young man's appetites, and by removing trying environments also removes conditions which were to compel him to volitional efforts, and self-conscious choice. Dr. L. fights all the battles, defeats all the foes, and leaves the young, morally weak and undeveloped man to reap a victory which he is altogether inadequate to manage.

The false safety of the young man's mind will last as long as the hypnotic force holds his nature under its spell. It may last for years, during which time the young man finds himself in some state of moral administration, depending for his inner equilibrium on the super-imposed subjugation of his animal nature. He has practically gained nothing, but, on the contrary, by being "saved" from the bracing tonic due to moral struggle, is losing opportunities of self-conquests and character development during every moment of his life. In the great economy of Universal Nature the entities render adequate efforts for every attainment, and there is no more reasonableness in the power of Dr. Lindsay to generate the tremendously deep-wrought soul qualities of character, will and conscience of his p tient, than it is for an animal trainer develop in the domestic hen the flyin capacity, visional keenness and power endurance peculiar to a mountain eagl

The individual virtue evolved by hy notic suggestion is comparable to th tameness and quietude brought about the conduct of a horse by cutting off som of his means of locomotion. For the vi tue of hypnotism is negative; it reform by lowering the vital strength of its sul jects, and turns sinners into saints b making them too weak to sin.

The aim of evolution is to round ou and strengthen every power and functio of its entities. It is not the *inability* sin that constitutes true virtue, but th power, gained through vital experienc by which the individual may be able to analyze the phantom of vice that i hollowness and sham are unmistakabl and its attractiveness forever turned int moral disgust.

And to reach this end the healer teacher must appeal to the judgment an reason, heart and conscience of his sul ject, and to trust to his soul-nature to d his part. It surely needed no hypnoti suggestions to change a Saul into a Pau and the conversion from darkness int light of this persecuting Jew on his wa to Damascus forms a more or less episod in the life of every human soul.

But though hypnotism in its relation progress is purely negative, its relatio to regeneracy is fatally positive. Henc the action which took effect in the conve sion of Paul sprung from powers nativ to the individual soul in its relation the divine ideal, and hence beyond th scope of hypnotic influence; while on th other hand, to turn the soul in an opp site direction, to convert a disciple Christ into a fiendish hypocrite, a Juda betraying his Master's life for a sordi sum of money, requires the influence a will and conscience-deadening hypn tism.

And here we arrive at the very hea and center of the subject. For, while th hypnotic suggestion is powerless change the slave into a man, it contin ally proves itself capable of turning me into slaves. Encountering too much r sistance, too hard work, and too slow r

in his appeals to the refractory, -moved reason and judgment the tizer chooses an easier way and ds under the cover of an induced state and by the power of a d, self-centered will, to break through otective coverings of the mind of bject. Having thus effected an en- into the sacred domain of anoth- ind, he assumes the tremendous re- bility to change its *modus operan-* suit his own motion, without re- o the individual needs and necessi- eculiar to any entity of evolution. astes and inclinations are intro- in the executive offices of the sur- ed mind, and organized and co-or- d into cerebro-spinal mechanism, so eave the impression of constituting l, self-generated impulses.

mines of conversion being thus nd properly adjusted, the healer aws from the field of operation to the moral explosions and watch esult in the formation of character. aced within himself of having saved dividual from threatening moral he little realizes that the rupture h which he effects his entrance in octored" mind remains wide open. t is in this connection we find one gravest mischiefs of hypnotism. is through this breach in the in- ment of the subjugated mind that age is established, inviting for time me any straggling nondescript t or slip-shod notion to take up rs and direct the vital activities in urped "chambers of the mind."

susceptibility of hypnotism after aving been subject to its influence xtend throughout the rest of the dual's life, though the permanence "cure" itself seems to depend upon e of the healer, and wear off with it. ver, it can safely be said that an dual, once "successfully" under the tic treatment, will never again find lf in possession of the courage, of freedom and power of choice, was his even under the most dis- ng environments.

eighbor of mine, whose wife had be- impatient with the tardiness and erestedness her husband showed regard to her domestic affairs, de- cided, on the instigation of a hypnotic "class professor," to take lessons in his strange, alluring art, and when proficient, also teach her imperfect other half a few of them.

Possessing a fairly good power of concentration, she soon got a grip on the practice, and immediately proceeded to subject her husband to its influence. Results were soon forthcoming. The docility of the subject became extraordinary. He found no service at home too mean for his attention. Dish-washing, carpet-beating, chamber-maid work, etc., became to him occupations as grave and dignified as the signing of an international treatise, and equally long-winded. In fact, he spent so much time in his domestic duties that his down-town business began to suffer. He had to be told not only when to commence, but also when to quit. A code of observance which had to be extended even to his operations at the table, where he, if left alone, would indulge until his face and bloodshot eyes showed signs of threatening apoplexy. He gradually had to be guided like a child, and at last got a permanent refuge in the insane asylum at Highland, not far from Los Angeles.

Another occurrence of a similar character is recently reported from St. Paul, Minn., where, during a public hypnotic exhibition, a boy of eleven was made subject to the "suggestion" that he was a rabbit. The suggestion "took" admirably and the audience had a thoroughly good time in watching the little victim's antics.

When the time came to awaken him the "professor" went through the usual manipulations, but failed. He promptly decamped, and is still decamped, while the boy is still a rabbit; that is to say, he is a lunatic, and whether or not he recovers, it is doubtful that the traces of the outrage can ever be wiped away from the workings of his mind.

But these are only two cases out of thousands. Scrupulously or unscrupulously practiced, hypnotism as a consciously and personally directed force, used for the purpose of bringing about changes of the mind in the individual, is irredeemably and unconditionally bad. Let us direct our reformatory and soul-saving ef-

forts to the self-conscious, self-willing, self-choosing man; let us appeal to his reason, his conscience, his heart, but always under the auspices of his own judgment. One single step taken by the man himself is of more evolutionary value than thousands under the gauge and assistance of hypnotism. Civilization and progress are indebted for its historical success to men who neither received nor administered hypnotism, but appealed to the manhood, judgment and conscience of their fellowmen.

[Written for the MEDICAL BRIEF.]

Medical Laws.

BY D. S. MADDOX, M. D.,
Columbus, Ohio.

In the current number of the BRIEF appears a communication from Dr. A. M. Richmond, in which the laws regulating the practice of medicine in the various States are condemned, and suggesting national legislation as a proper remedy. I heartily agree with the writer that our medical laws are absurd and unjust, but the remedy he suggests is, I believe, altogether wrong in principle.

We do not need any Federal laws to regulate the practice of medicine. Federal legislation would prove a bigger mistake than have our present State medical practice acts. We do not need *more* laws on the subject, but *fewer* laws.

I doubt whether a Federal law of this nature could be passed, for it would certainly interfere with the constitutional rights of the sovereign States to regulate their own internal affairs. Each State in the Union has, and ought to have, the right to regulate its own affairs, medical and otherwise.

The destruction of State sovereignty and the centralization of power at Washington would be inimical to our liberties, and might result in the ultimate overthrow of our present form of government and the establishment of an oligarchy, or worse. The way to remedy the medical legislation evil is not by Federal interference. To attempt to do so would, I firmly believe, be jumping from the frying-pan into the fire. The State legislatures are the bodies that make these vicious medical laws, and it is to them tha the profession must look for relief. Abou ten years ago medical legislation becam a fad, or craze, which spread all over th country, and State legislatures, egged o by irresponsible medical politicians, vie with one another in turning out thes queer and unnecessary laws to regulat the doctors. But there are signs that th craze has now reached its limit, and tha a healthy reaction is about to take place

The rank and file of the medical pro fession are at last waking up to a realiza tion that they have been most shamefull bunkoed by the medical politicians. Th laity, also, are beginning to see that thes laws, which they were told were for thei protection, are delusions and snares; tha instead of affording them any sort of pro tection they merely deprived them o their inalienable right to employ medica attendants of their own choosing. Th sentiment against these iniquitous medi cal laws is rapidly growing, and there i already in every State a large body o liberal-minded physicians whose influenc and concerted action will soon be felt State legislatures will be asked to so mod ify these laws that the profession wil nc longer be at the mercy of arbitrar boards of health, and boards of examina tion and registration. If the liberal ele ment in the profession will only stand to gether and work for the common weal State medical trusts and boards of al sorts, that are now oppressing the people will soon be things of the past.

A diploma from a respectable medica school is *prima facie* evidence that th holder is qualified to enter upon the prac tice of his profession. No examinatio by any State board can lessen or increas the holder's qualifications. State exam inations in such cases are unnecessary unjust and altogether absurd. No on is benefited by them, save the examiners who, in most cases, receive a fat *per dien* and mileage. Moreover, this remunera tion is in many instances in excess o what some of the examiners are capable of earning in the same time by their pro fessional efforts.

In conclusion, I venture to predict tha the time is not far distant when this craze for restrictive medical legislation will subside entirely, and when a physi-

liploma will be the only license re- to practice in any State in the I may be too optimistic, but then m is only another name for hope, thout this spiritual quality within may not expect to accomplish re- or win battles.

Written for the MEDICAL BRIEF.]

olic Acid a Scientific Magic.

BY ROBERT GRAY, M. D.,
Pichucalco, Chiapas, Mexico.

time since, I read in a French journal a flaying criticism of Dr. Brodnax, Brodnax, La., because essionally affirmed that pure crys- olic acid, liquefied by a hot bath uncorked bottle, was a hundred more effective and less painful one per cent solution, and abso- non-toxic, whether externally or rmically applied to human y.

t Dr. Brodnax in New Orleans a young man, and accidentally ufficent of his subsequent history fy me that he was incapable of ing a medical hoax, fraught with ous possibilities, as his French undoubtedly and honestly believed. ong afterwards, I was called to see ictims of a common country free- in Central America, classically revolutionary warfare. There x of them well hacked up by edged s; plenty of deep, gaping cuts, g, as horses dead for a week, ap- y gangrenous, the truth of which no attempt to ascertain. Their was appalling, even to me, then ured to horrid scenes in that dis- country. I was at my wits end, remedy, when I recalled what I d about Dr. Brodnax. I reasoned thing could render their physical more intense; that death was in- under existing circumstances, t if the acid killed as quickly as cution, as the French scientists would be the consequences, its ght prove a blessing to my hapless s. Hence, I mopped the wounds of most nearly dissected thoroughly re liquid acid, using a big feather, s astounded to see that he grew tranquil and went to sleep at once, while the fever, which must have been 41° C., fell to normal within an hour. Acid used was not weighed, but was at least two hundred grains—toxemia in solution for a host of men—applied freely and directly to naked flesh. There were no toxic symptoms, nor heart disturbances. The remaining five were at once thus treated, with results equally propitious. It is almost superfluous to say that the nauseating stench at once disappeared. The wounds healed rapidly without more pain or medicine.

Subsequent microscopic examination, same day acid was applied, proved that as soon as it passed the putrid and touched the healthy flesh, an impenetrable albuminate was formed with the blood serum, rendering any degree of absorption out of all question.

I have since used, times unnumbered—am using almost every day—pure liquefied crystal, in all classes of wounds, ulcers and old sores, with results that no other remedy approaches. Applied to fresh burns the pain subsides at once and the cure is prompt. Injected into boils, ulcers and tumors of any character, while growing, they are aborted and die painlessly.

Syringe should be charged with warm acid, and kept in hot water till ready to use, to prevent crystallization in the needle. Quantity depends on requirement of disease—three or four drops in small boils, etc. When the inflammation is very large and much aggravated, it should be injected at various points.

Do not be afraid of it—not even in ulcers, fistulas and abscesses of the rectum and anus, where one application almost always suffices. You have people using sixty-five per cent solutions with sweet oil, glycerin and the like, in diseases of the rectum and anus, among them, Dr. Monroe, of Louisville, if I remember correctly. Why thus diluted, I am unable to conjecture, as the pure article is less painful and entirely harmless to the physical anatomy. You have your speculums, syringes, needles and lights and anesthetics, necessary for rectal work, while French makes are the vogue here. There is no hypodermic pain more than that caused by the en-

trance of the needle, the acid being an anesthetic of matchless quality, that kills the agony where it is applied, instantly, in the most painful boil or ulcer.

Equal parts crystal acid, chloral hydrate and camphor gum constitute a compound deadly to ringworm, other skin diseases and rhus poisons, that causes slight inconvenience to patients, the pure acid being unsuitable for delicate, tender cutaneous surfaces, though less painful than the compound. Caustic action of pure acid destroys the healthy skin, which the compound does not injure. Extensive application of the compound produces no toxic symptoms, which would certainly supervene from similar quantity of a much weaker aqueous solution. Alcohol perfectly antidotes carbolic acid externally and internally.

Brother readers of the BRIEF, prove out the possibilities of pure carbolic acid, as revealed by Dr. Brodnax, and you will combine and rear him a magnificent monument, as a benefactor to the profession and the human race. I will contribute my part on demand.

The scientific Frenchmen ridiculed Dr. Brodnax, probably because he was a rural physician in the United States, rather than a brilliant medical light in a big European city. The same Frenchmen lauded Koch to the skies, but could not sustain him in the temple of fame after his marvelous theories passed the crucial test of inexorable practice, where all methods and men stand or fall on the strength or frailty of intrinsic merit. I owe Dr. Brodnax more than all the text-books and medical writers of the age can claim at my hands, though I saw only the criticism of his contribution to medical science, and I am not ashamed nor afraid to make the confession.

I forgot to say earlier that compound crystal, chloral and camphor, equal parts, with olive oil, makes the best catarrh remedy I ever saw. I have perfectly cured several chronics; and for colds or influenza in head, there is no equal. What sticks to tip of finger over mouth of vial put well up into each nostril and energetically snuffed two or three times daily, is my way of using it. It is not painful, as one might suppose, with some seventeen parts pure crystal acid.

Regular Board Medical Examiners State of Georgia—Atlanta, Ga., April 5, 1905.

E. R. ANTHONY, M. D., Griffin, Ga., President.

F. D. PATTERSON, M. D., Cuthbert, Ga., Secretary and Treasurer.

MATERIA MEDICA AND THERAPEUTICS—W. I TRAVIS, M. D

1. Name chief indications for the use o opium.

2. Give symptoms of opium poisoning an treatment, and show with what diseased co ditions these symptoms might be confounded.

3. Name two respiratory stimulants an two vaso-motor depressants, with indicatio for use, dose and usual method of admini tration.

4. What ratios do hypodermatic and rec dosage bear to that by the mouth?

5. Name two best diuretics, and give dose

SURGERY—J. B. S. HOLMES, M. D.

1. Define surgical shock. (a) How woul you treat it?

2. Describe an operation for the radic cure of oblique inguinal hernia.

3. Describe Halsted's operation for the r moval of the breast.

4. Describe an operation for amputation o the thigh at the middle third.

5. What is Colle's fracture? (a) Ho would you treat it?

ANATOMY—F. M. RIDLEY, M. D.

1. Give origin, course and distribution o pneumogastric nerve. Name groups of spina nerves and number in each group. Describ solar plexus. Give brief general description o sympathetic nervous system.

2. Give divisions of spinal vertebra. Ho would you identify bones of cervical vertebra of dorsal vertebra? Name bones of carpus; o tarsus. Name bones of pelvis.

3. Name muscles comprising quadriceps extensor-femoris. Describe triangles of nec by diagram.

4. Describe circle of Willis. What is rela tion of external to internal carotid artery Name branches of external carotid artery.

5. Describe diaphragm. Describe heart Give names, and relation to bones and muscles of blood vessels found on cross section a middle of thigh.

CHEMISTRY—DR. E. R. ANTHONY.

1. What is a normal salt? An acid salt A double salt?

2. Differentiate sulphates and sulphites.

3. What is the chemical name of Epson salt? Glauber's salt? Give the formula o each.

4. How does hydrogen dioxide act as an antiseptic?

5. Complete the following equation and name each resulting compound:

B_2O_2 plus H_2SO_4=

PRACTICE—DR. F. D. PATTERSON.

Etiology, symptoms and treatment of pneumonia.

Define scarlet fever. (a) Describe method of handling case.

Etiology, symptoms and treatment of infantum.

Define uremia. (a) Give most important agnostic symptoms. (b) Give treatment.

Source of malaria. (a) Give treatment, rophylactic and curative.

8th, 1905.

A MEDICA AND THERAPEUTICS—W. D. TRAVIS, M. D.

Give symptoms of carbolic acid poisoning e treatment.

From what source is digitalis obtained? two preparations and their dosage, and e its action with that of strophanthus.

What are mydriatics? Myotics? Name f the most important in each class.

Give composition of Fowler's solution, powder and pulvis effervescens com-

What would you consider a safe dose of ine sulphate? Chloral hydrate? Hydrobromate? Pilocarpine hydrochlo- Morphine sulphate? Aconitine nitrate? phine hydrochlorate?

PHYSIOLOGY—DR. E. R. ANTHONY.

ame the seven functions of the skin.

ame the five digestive juices, giving he action of each.

ame the three things constituting one f the heart and their time.

hat is the volume of air taken in the an ordinary inspiration? How much s oxygen, and how much of the oxygen bed?

hat three cranial nerves are for special What six are exclusively motor? What e compound?

OBSTETRICS—DR. F. D. PATTERSON.

ve management in breech presentation.

ve certain and uncertain signs of cy.

ow would you manage a prolapse (a) What are the dangers?

hat are the dangers to the child in resentation? (a) Describe extraction.

iology of puerperal eclampsia. What e your treatment?

PATHOLOGY—F. M. RIDLEY, M. D.

hat are the changes in inflammation? the pathology of erysipelas?

hat is the pathology of phthisis pul- Give method of staining tubercle

scribe pathology of malaria. How is arial parasite introduced into the Describe its developments in the blood. e three plasmodi.

ve points of differential diagnosis be- rcoma and carcinoma.

me types of nephritis. Give pathology chymatous nephritis.

GYNECOLOGY—J. B. S. HOLMES, M. D.

1. Give differential diagnosis between gonorrheal and acute simple catarrhal vaginitis.
2. How would you treat a cyst of the vulvo-vaginal gland?
3. Name the conditions for which you would advise a hysterectomy. (a) Describe the operation by the abdominal route.
4. How would you treat a recto-vaginal fistula?
5. What are the symptoms of carcinoma of the uterus? (a) Treatment?

[Written for the MEDICAL BRIEF.]

Miscarriage.

BY W. L. KREIDER, M. D.,
Prairie City, Ill.

In the March number of the MEDICAL BRIEF, on page 222, I read an article giving directions how to manage a case of miscarriage, in a word, every time from one month to nine.

The method of terminating gestation.—The method, as directed in that article, to my mind, is a very dangerous one, to say the least. I do not believe it is ever necessary to dilate the cervical canal. A female sound, when properly used, is all that is necessary in any case. Then give Nature sufficient time to do the work, and you will always be on the safe side. Irritate the parts as little as possible. I have practiced medicine for more than forty-eight years, have attended many cases of confinement, from one month to nine; have attended as high as ten cases in a week, and have never lost but one case. She was regularly confined, had twins, both male, and both lived. Two hours after confinement she had a convulsion, and had twenty-seven more, and died twelve hours after the first convulsion. I think this is a remarkable record, and that any physician should feel proud of it. Many physicians nowadays are using strong antiseptics. I fear frequently they do much harm. I never have used anything but warm water to keep the parts clean, without soap or anything. Water alone will cleanse the parts perfectly, when properly used, and will leave them in a much healthier condition than when antiseptics are used. I look upon it as bad practice to keep a woman in bed two weeks after a mis-

carriage. When all goes well, three or four days is long enough.

I would ask my medical brothers to stop and think. I have thought out things that were as new to me as though some one had told me. Rely on your own good judgment and do not follow the fads of the day.

[Written for the MEDICAL BRIEF.]

Various Types of Typhoid Fever.

BY J. W. BRYANT, M. D.,
Shamrock, Mo.

Do we have a true type of typhoid fever west of the Mississippi River? Some doctors have an abundant crop (?) of it in early summer, mid-summer and autumn. I have had cases that approached typhoid in their course, but the bowels presented no symptoms of the lesions described in the text-books. And again, I have had cases that are ordinarily designated as typho-malarial where there was a copious, watery, bilious diarrhea without hemorrhage, but with much tympany of the bowels. The evacuations of the bladder would be green. Duration of illness from five to eight weeks. Convalescence followed by loss of hair.

The question continues to present itself to my mind, why the old-fashioned name of bilious fever would not still be more correct (certainly more descriptive) than typho-malarial, when there is such a lack of typhoid symptoms?

In September, 1902, I was called to see a girl, twelve years old, living on a hill, near a water course. I found her with a remitting type of fever. She had quit school ten or twelve days before I saw her, on account of the fever coming up; and her folks had been trying to break the fever with domestic remedies. I put her upon an anti-malarial treatment, and after a more or less worried course, dismissed her on the twenty-fourth day from my first visit. In six days I was called back. Her temperature was 104° F., pulse one hundred and twenty. She was vomiting bile, and voiding bile from both bowels and bladder. The relapse was brought about by her folks giving her all the fruit she could eat. I had a very bilious case on hands for another twenty-nine days. Counting up, we have ten days before I saw her; then, twenty-four days under my treatment; six days I was absent; then, twenty-nine days under treatment again; making a total of sixty-nine days. There was no delirium, no hemorrhage from the bowels, no petechia. The skin was of an icterode hue. The hair fell out in convalescence. There was some nervousness, but it was due to an overtaxed system.

While I was treating the above case, I was called to see a negro man, aged twenty-two, who had, the day before I saw him, been brought to his home in Callaway County, Missouri, from Jacksonville, Illinois. I found him with a temperature of 104° F., pulse one hundred and ten, coated tongue, a bloody-watery diarrhea. Under the opiates to control his bowels, he had a mild delirium. His parents asked me if he would not have inflammation of the bowels by keeping them locked so long. I warned them that perforation of the bowels might result from a movement. The first week, the bowels were controlled nicely, but the continued delirium of the patient frightened the negroes—that and the fear that inflammation of the bowels would set up by the enforced constipation. The second week, they began to neglect the bowel remedy; the intellect cleared up, and the bowels began to move. Two considerable hemorrhages brought the negroes to their senses. They began to give bowel remedy regularly, and the hemorrhages were brought under control. After the hemorrhages, the pulse reached no higher than ninety-two, temperature no higher than 101° F. But the man was endowed with a strong constitution and made a rapid recovery.

This case of typhoid was imported from Illinois.

Last May I attended a case (that extended well into June) that had all the symptoms of typhoid, except bowel symptoms; there was mild delirium, subsultus tendinum, and the rose-colored spots; dry, cracked tongue. Constipation was so persistent that I resorted to a mercurial purgative about twice a week during the twenty-one days he was under treatment.

ter treating this early summer case, ember brought me a series of cases, similar to the case with which I ed this article—the bilious type. there were two walking cases of a grade of fever; thick, yellow coating ongue, moist skin, constipation, no ium, no subsultus. A chronic ma- l toxemia.

hen I was fortunate enough to reach se at the outset, I gave a stirring urial, and followed with four-grain of quinia sulph. regularly, and nti-pyretic remedy. The case would r be aborted or much shortened. A 's neglect would be followed by a tedious attack. The time (in the e of a case of fever) that a physi- is called has much to do with the of treatment. When a case enters a chronic course, strychnine and ic are indicated. The patient is not apable of bearing the heroic doses lomel and quinine as he was at the . I find that the present coal tar dies are quite effective in high fe- No rule of treatment holds good in ases, because each case has an indi- lity of its own. Fevers in the city features dissimilar to kindred cases he country. Malaria is a more or complication of all fevers in the ry, while typhoid approaches nearer e type in the crowded city.

[Written for the MEDICAL BRIEF.]

Some Practical Items.

BY E. R. ELLIS, M. D.,
Detroit, Mich.

hile there are many things in the ice of medicine and surgery which not any one invariable rule or od thereon, there are some in which easy and simple means are best, and sometimes overlooked.

epistaxis, I have frequently found directing the patient to press his r against the side of the nostril n does not bleed and instruct him to in deep, full breaths over the bleed- urface, and expire through the open h, quickly stops the hemorrhage. him first blow his nose freely, so remove clots, and then inhale and exhale rapidly for several minutes as above. The cool air goes in over the raw surface and comes out warm through the mouth, and cool air, as we all know, is one of the best hemostatics.

In the syncope, or collapse, which often attends the giving of chloroform, or other anesthetic, a method which is always at hand and may be instantly used, is that of inverting the patient. Let his head hang to the floor, and jig him up and down in this inverted position, as you would rinse an empty milk bottle—will speedily cause him to catch his breath and remove all danger. I tried this plan over thirty years ago, and it has never failed me since. What is peculiar in these cases is that those which are most fatal generally attend on the first or second inspiration of the anesthetic. The drug seems to paralyze the heart, the blood settles away from the brain, and the syncope or collapse which follows is most alarming and sometimes fatal. Inverting the patient, as above, turns the blood back to the brain and is the remedy which is always at hand and effectual.

A modern fad among surgeons is circumcising boys, and even babies. This is a most cruel, brutal and unjustifiable procedure. All male children should be looked to frequently to see whether or not they have constriction or adhesion of the prepuce—one or both. In such case it is not difficult to completely remove the trouble without mutilating the organ in the least. Where there is adhesion, the part can be torn loose by forcibly pushing the foreskin back over the glans and cleaning out the smegma which is very sure to have collected there. If the foreskin is too much contracted to be pushed back, the contraction is confined to the mucous, or inner layer, and not to the skin proper, or outer layer. In this case, strain back the outer layer as far as it will easily go, and with the knife or sharp scissors, inserted under the mucus lining, slit it up on the dorsal side freely. Then insert a stitch at the sharp angle of the inner and outer layer with one or two more stitches on the sides, and you have a perfect job. The skin, or a portion of it, turns under and eventually changes to mucous lining, enabling the foreskin to move freely back and forth, whereby the glans can be kept

clean and protected by the cover which nature has provided.

Circumcision leaves the glans bare and subject to much irritation from the clothing with an uncouth fold or ruffle of tissue about the organ. Ten years ago, I drew up a bill and sent it to our legislature, making the circumcising of a child or minor a crime. It was not acted upon, as I expected, for I mainly wished to call public attention to this brutality, hoping to discourage, and even prevent it. I was induced to do this from witnessing the screams and frantic actions of children of Jewish parents, who had been recently thus mutilated, on the sight of a doctor or strange man, for a long time afterwards. A man, be he doctor or not, who will thus mutilate a helpless child ought to be very much ashamed of himself, if he is not prosecuted. As a religious "rite" it is absurd, when forced upon a child, and can have no "saving" effect. After adult age is reached, a man should have the operation performed on him if he desires. But how many would in such case? Very few, I am sure.

20 Wilcox Street.

[Written for the MEDICAL BRIEF.]

Summer Complaint.

BY J. C. BRISTOW, M. D.,
Wayne City, Ill.

I must tell you of a new treatment used in this place for summer complaint in a child that a woman brought to me for treatment. I asked the grandmother, who brought the child, what it was that was tied around the child's neck. She said that it was a mole's foot that was tied on the back of the neck and a chunk of brimstone tied under its chin. The child looked like it was at death's door, but of course, it got well. I am in the eightieth year of my age and the fiftieth of my practice; had lived in Kentucky in the "good old slavery days," knew the rabbit-foot charms, and of other hoodoo doings of the slaves, and had also read of some wonderful remedies of the Celtic Druids, but it seemed to me that this mole's foot arrangement outranked them all.

[Written for the MEDICAL BRIEF.]

Placenta Previa—Drug Addiction.

BY W. S. ROBINSON, M. D.,
Nashville. Ark.

We can not select a plan of treatment suitable to all cases of placenta previa. The state of the cervix, the degree of hemorrhage, the variety of the placenta previa, would determine the course of action in any given case. With an undilated cervix, the placenta being central or a large margin over the os, we are confronted with a grave emergency, requiring judicious and prompt treatment.

I believe that it is agreed among obstetricians that as soon as the cervix is dilated, version is the ideal treatment.

Usually placenta previa announces itself by profuse hemorrhage, the patient is partly exsanguinated, and the cervix, as a rule, is sufficiently dilated to introduce one or two fingers. I have never seen a case in which two fingers could not be passed through the cervix when there had been profuse hemorrhage.

The central variety should be handled with the greatest expedition. It is this type of cases that is most serious from the standpoint of hemorrhage during and after labor. Sure, you must not waste time with tampons or your rubber bags or any artificial means to plug the cervix, but dilate sufficient to introduce your fingers and do bipolar version.

"That man will have the best results in placenta previa who least regards the life of the child."

We should have at hand the appliances to treat this alarming condition. The insertion of the utero-vaginal tampon from the fundus to the vulva, should be kept in place for twenty-four hours and gradually removed.

We do not meet the cases under ideal conditions, and I doubt the possibility of making a diagnosis of placenta previa before hemorrhage occurs and at a period of pregnancy when the child is viable. Hemorrhage before viability is very rarely serious, and as a rule we may carry the woman to the end of the seventh month, but hemorrhage beginning before the end of the sixth month should make us look very closely for placenta previa centralis.

t becomes certain that it is pla-
revia that you are dealing with, I
it is our duty to induce labor at

risk to the woman increases pro-
ly to term after the first hemor-

ses of central previa it may be
ry to go through, or tear off a
of the obstructing placenta. It is
es easier to tear away a portion
perforate the placenta; in all
e condition of the mother demands
ork. And remember when it is
ry to tampon it is no simple mat-
requires skill, patience and yards
e. I prefer carbolized, creolin or
id gauze. It matters very little
d of antiseptic with which it is
d, but I prefer not to use iodo-
nd never use bichloride gauze.
something over one hundred cases
g addiction treated successfully
oscine, I am more and more con-
that it (hyoscine) is an antidote
and all cases of the drug habit.
fession should pay more attention
e cases (drug addiction), and
would be fewer of these so-called
riums" and "home treatments,"
by laymen and supervised by in-
medical men, who fleece these
nfortunates.

[Written for the MEDICAL BRIEF.]

Macrotys—Black Cohosh.

BY WM. A. ILES, M. D.,
Urbana, Kan.

specific tincture, or any good prep-
made from the fresh root.
is the remedy for muscular rheu-
, not the result of local inflamma-
It is also one of our most reliable
remedies.
der says, associated with pulsatilla,
specific in many cases of dysmenor-
It should be given three or four
efore the expected period, and con-
until the flow is free. In amenor-
is also one of our most efficient
In rheumatism of the uterus, to
false pains, or the many unpleasant
ions attending pregnancy, it has no
n the *materia medica*, and becomes
partus prepurator.

Bartholow says there is little doubt that it increases the contractility of unstriped muscular fiber in a manner similar to ergot, but much feebler. It stimulates the venereal appetite in man, and promotes the menstrual flow in woman.

In a practice of more than twenty years, following the indications for the use of macrotys, I have never been disappointed. In treating cases of threatened abortion, before the membranes are ruptured, alternated with specific viburnum, I have not had a failure. I have used macrotys in cases of false pains that sometimes come on a few weeks before the time for true labor with unvariable success.

For the pains and unpleasant sensations that occur during the last months of gestation, give five drops, three or four times daily. It will give great relief, and your patient will bless you when she comes to her confinement. I would say to the young doctor, give this remedy a thorough study, and a fair trial, and it may be that a wider range of usefulness may be found for it than we now have any knowledge of.

[Written for the MEDICAL BRIEF.]

A Plea for More Thorough Examination in Stomach Troubles.

BY W. J. HODGES, M. D.,
Pineville, Ky.

I take it that there is scarcely one of us who would attempt to diagnose or prescribe for any kidney lesion without having made a chemical examination of the urine.

But on the other hand, however ready we are with pencil and blank to scratch off our favorite mixture of strychnine, acid and pepsin, or arsenic pancreatin and rhubarb to every one who comes to us with stomach symptoms, and in the most cases adding fuel to the fire, simply because we do not know the chemistry of the contents of the stomach for which we are prescribing.

Why the difference? The chemistry of the stomach secretions are as well known as is the chemistry of the urine, and the analysis is as easy in the one case as the other, it being equally as difficult to arrive at a proper diagnosis without a chemical analysis in either.

Then why show preference to the kidney lesion? Certainly it is not because we can do more for them. The reverse is true. Then let me plead with you to analyze the contents of patients' stomachs and see how many of your favorite digestive compounds are worse than useless.

[Written for the MEDICAL BRIEF.]

Hemorrhoids.

BY CHARLES L. CRIDER, M. D.,
Crooksville, Ohio.

Hemorrhoids which, for various reasons, do or can not be treated surgically, may be successfully treated, and seventy-five per cent permanently cured by the internal administration of ichthyol in from ten to fifteen minim doses every four hours, in pill or capsule. Never attempt to give ichthyol per orem other than as above prescribed, as it is very disagreeable and the patient will either not take it at all, or very irregular.

[Written for the MEDICAL BRIEF.]

Treatment of Acne.

BY L. G. DOANE, M. D.,
New York City.

Dr. A. H. Ohmann-Dumesnil, an eminent physician and dermatologist, of St. Louis, uses the following ointment for acne:

℞ Sulphuris	1	drachm.
Acid Salicylic	½	scruple.
Resorcin	½	scruple.
Vaseline	1	ounce.

M. Sig.: External use.

Face baths of warm water, correction of the secretions, regulation of the diet, and punching out of acne pustules complete the treatment. Every specialist knows what is necessary, and will suggest such means and methods as are necessary.

Multiple Examination.

LINCOLN, NEB., April 4, 1905.

EDITOR MEDICAL BRIEF—Allow me to congratulate you on the stand that you have taken against multiple or dual examination of physicians every time he crosses the boundary line of a State. The physicians in every State should feel an interest in this important question, and thank you for the stand you have taken and presented through the MEDICAL BRIEF. Multiple examinations required of physicians who have graduated from reputable medical colleges (who, for reasons best known to themselves, move from one State into another, and there be subjected to re-examination, sometimes by catch questions and incompetent boards) is an insult to the educated physician. If every State used different text books on anatomy, physiology, pathology, surgery, *materia medica*, etc., or if the treatment of contagious, infectious and all other diseases would have to be changed, etc., then re-examinations would be justifiable, but under existing circumstances those multiple examinations are humiliating to the educated physician who has complied with all the requirements of a reputable college, viz., four years in college and final examination as to his proficiency to practice medicine. I believe, like the Editor, viz., we ought to have some national legislation to regulate this injustice. Let every physician send in his protest with *bracketed* interrogation points (?). WM. PROTZMAN, M. D.

[Written for the MEDICAL BRIEF.]

To Abort Pneumonia.

BY J. M. FRENCH, M. D.,
Milford, Mass.

1. You must be called in the first stage, the earlier the better.

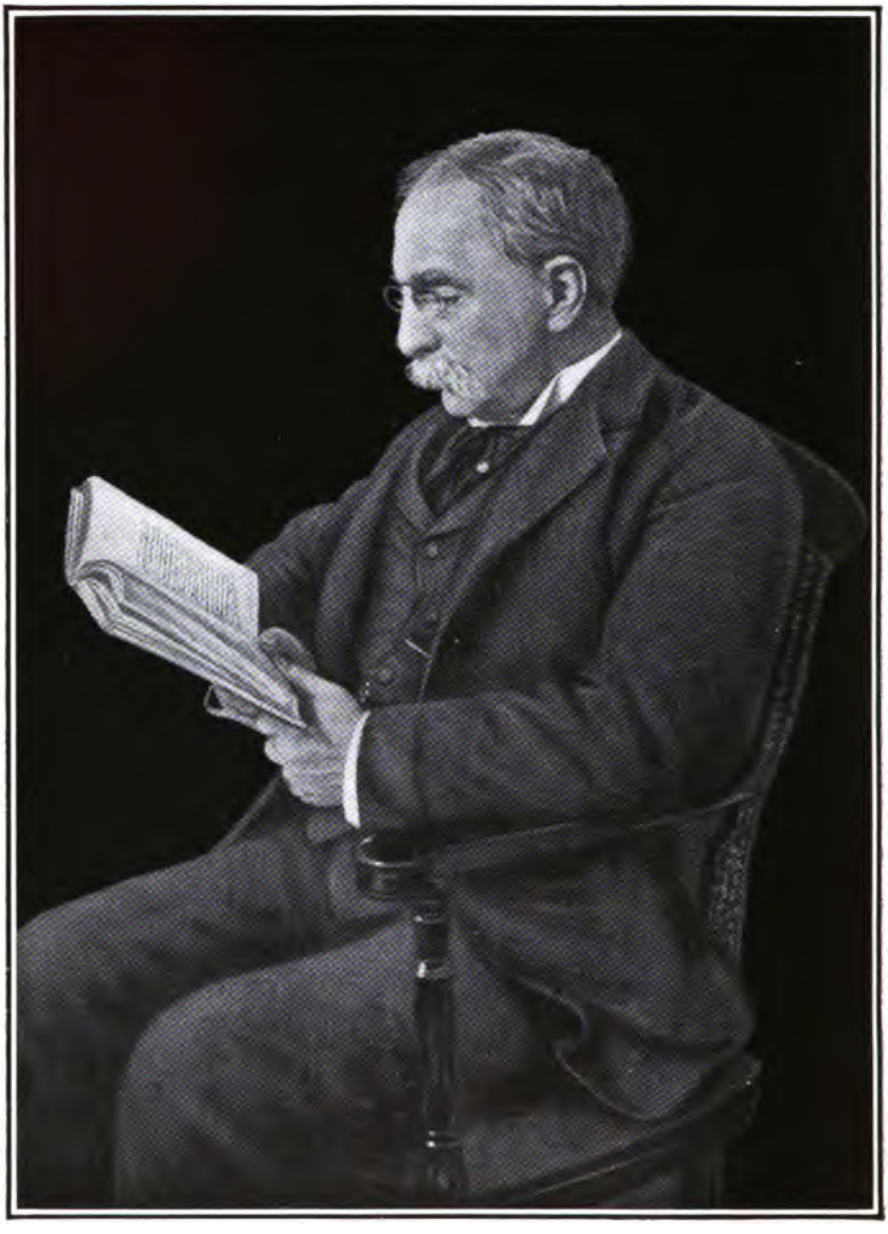
2. Apply a mustard paste to the affected side and follow this with a hot poultice, using any of the formulas having kaolin as a base.

3. Secure elimination by giving calomel in divided doses, followed by a saline.

4. Treat the fever with aconitine or veratrine, guarded if necessary by strychnine and digitalin, in solution, and dosage for effect.

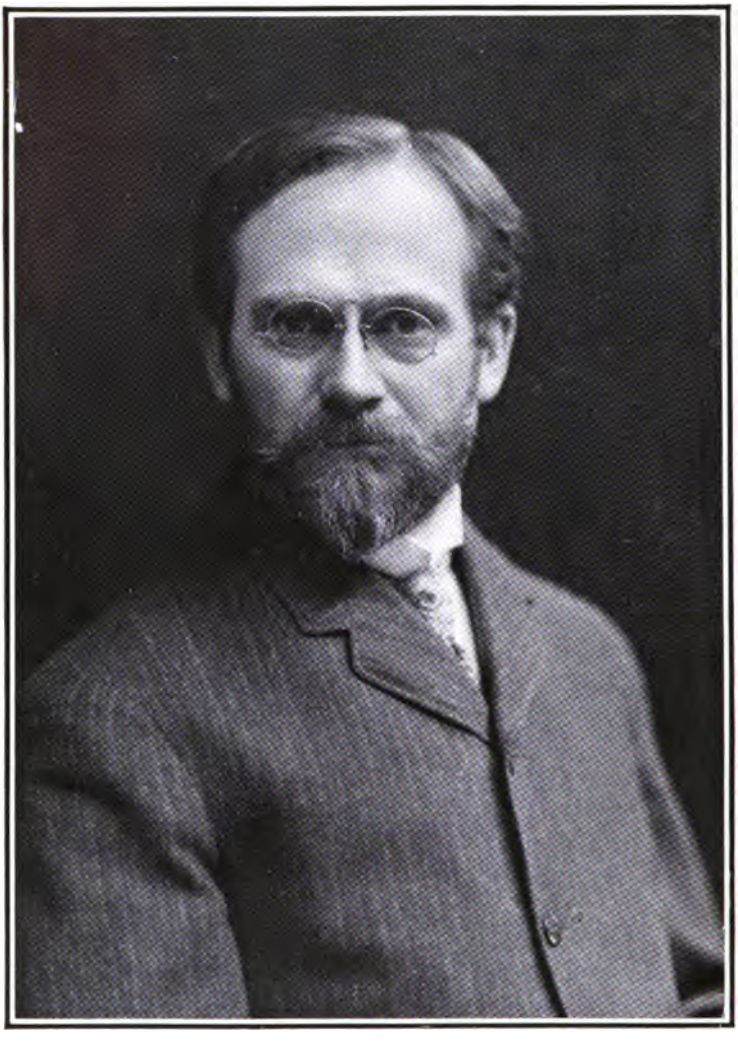
5. As a respiratory antiseptic, administer carbonate of creosote, one teaspoonful in hot milk four times a day to an adult.

With this plan, begun early and carried out faithfully, you can abort a large proportion of your cases of pneumonia.



W. H. Carmalt

M. D., Professor of the Principles and Practice of Surgery in Yale University; Fellow of the American Surgical Association; Member of the American Medical Association; Secretary of the Congress of American Physicians and Surgeons, Etc., Etc. New Haven, Conn.



Ralph Walker.

M. D., Professor of Diseases of Women in the New York Post-Graduate Medical School and Hospital; Gynecologist to Lebanon Hospital; Gynecologist to Post-Graduate Hospital; Fellow of the Academy of Medicine; Member of N. Y. State Medical, County Medical, Obstetrical and Lenox Medical and Surgical Societies; State and County Medical Associations, etc., etc. New York City.

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Editorial.

Editorial Notice.

Owing to the fact that the Editor is ab-
nt, taking a complete rest, there will
no editorials in this issue.

[Written for the MEDICAL BRIEF.]

rly Surgical Interference In Gall-Bladder Disease.

BY WILLIAM H. CARMALT, M. D.,

fessor of the Principles and Practice of Surgery in Yale University; Fellow of the American Surgical Association; Member of the American Medical Association; Secretary of the Congress of American Physicians and Surgeons, Etc., Etc., New Haven, Conn.

A few years ago surgeons operated only suspected or assumed stones in the l bladder and ducts. Investigations this subject have brought to light a nber of conditions which require sur-al intervention, our knowledge of them ing been derived by what Kehr speaks of as "autopsies in vivo," unsuspected conditions found in operations, instead of knowledge derived from the *post-mortem* table. We are learning to make exploratory operations for conditions that may be relieved long before it becomes so serious as to suggest a *post-mortem*. A distinguished member of our profession, in a neighboring city, suffered for nearly twenty years with what he supposed to be attacks of dyspepsia, or indigestion, as he called it, more or less severe. The suggestion having been made that there might be a gall-bladder disease, an operation was resorted to, and a large number of unsuspected stones were found in the gall bladder; the gall bladder was thickened and eroded, there was a fistulous opening between the gall bladder and the duodenum. Cholecystectomy done, the hole in the duodenum was sewn up, and he has for the last two years enjoyed health that he had not had for the previous twenty years.

We must learn to operate before these conditions exist, if possible, and the early symptoms of gall-bladder disease studied with more acuity than heretofore.

I do not propose to go over the symptomatology of gall stones and gall-bladder disease at present. That has already been done by many good men, and I simply now wish to call attention to the excellent chart which Professor Brewer has published in the transactions of the Congress of American Physicians and Surgeons in the volume for 1903.

Infection of the gall bladder is so easily accomplished from either the colon bacillus or the typhoid bacillus, that one should always be suspicious of intestinal disturbances in the upper abdomen, particularly in patients who have had typhoid fever, and although we know stones may exist in the gall bladder in great number, not presenting symptoms calling attention to them during life, and found as surprises at the *post-mortem* table, there are patients who have suffered for years with suspected simple indigestion, duodenitis, etc., who really are suffering from infection of the gall bladder containing stones. The presence of stones offers increased opportunity for infection, but infection may come without the formation of calculi, and much can be done in the way of operative procedure directed towards the relief of the local conditions arising in the upper abdomen.

Malignant disease of the gall bladder, as is well known, may be caused by the presence of stones which, of themselves, give rise to very few objective, or even subjective, symptoms. Surgeons wonder in these days, after their cholecystectomies, what the gall bladder is for, so much relief is obtained by its removal, and so little ill-effect is produced thereby. Cholecystitis has widespread effects where the disease extends upward, perhaps, into the hepatic ducts, gall ducts, or by continuity, through the common ducts into the pancreatic ducts, producing a chronic interstitial pancreatitis, and even without this, adhesions, more or less firm, between the gall bladder, the duodenum, the stomach, the colon, ascending and transverse, extending down not infrequently often involve the cecum and the appendix. Two cases operated upon recently showed simultaneous, or consecutive, one can not say which, involvement of the appendix with cholecystitis, and it is quite possible that some of the unsatisfactory results following operations for chronic appendic were due to the fact that we had not tended our exploration far enough along the cecum and the colon to expl the gall bladder, and relieve conditi there. In both the cases just referred the prominent symptoms were toward right hypochondriac region, and the op ations undertaken in order to relieve s pected conditions there, whether stones simple cholecystitis, was not definitely termined beforehand. In both, chro inflammation of the gall bladder was vealed, without stones, but firm adhesi of the colon to the gall bladder, contrac and thickened gall bladders, and the flammation was traced down along ascending colon until the appendix found involved in a series of adhesio which justified the removal in both stances.

We should operate to relieve conditi that threaten trouble, without waiting the actual trouble to begin. Comparis between gall-bladder disease and app dicitis has been made, and the conditi are sufficiently alike to allow us to tr them in the same way. The compa tively less danger of acute suppurat cholecystitis, as compared with acute s purative appendicitis, is due, of cou to the fact of the more protected situat of the gall bladder, as compared with appendix, the appendix lying almost f in the abdominal cavity, and when it comes the seat of acute suppurative flammation from the colon bacillus, a g eral peritonitis is likely to occur, unl the omentum comes down and prote as, fortunately, it frequently does. gall bladder is enclosed, has thicker wa it lies in contact with other organs the vicinity, adhesions form quickly, p tecting the general cavity, and while do not have general peritonitis follow suppurative cholecystitis as frequently we do suppurative appendicitis, it lays foundation for many local conditions t require interference later.

One has only to look over the statist given in Mayo's recent articles on t subject to appreciate the great variety conditions which may arise, calling the highest surgical skill for their rel and yet which might have been preven by a more timely interference. My obj

ing these few words is to urge upon ofession, both medical and surgical, alert for early symptoms of gall- r disease, and take the steps neces- o prevent its wider development.

n Street.

Written for the MEDICAL BRIEF.]

quent Mistake in Extra-Uter- ine Pregnancy.

BY RALPH WALDO, M. D.,

or of Diseases of Women in the New York st-Graduate Medical School and Hospital; necologist to Lebanon Hospital; Gyne- logist to Post-Graduate Hospital; Fellow the Academy of Medicine; Member of Y. State Medical, County Medical, Ob- etrical and Lenox Medical and Surgical cieties; State and County Medical Asso- ations, etc., etc. New York City.

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subject is best illustrated by a de- on of two patients whom I have re- operated upon. The first, Mrs. B., n, thirty-six years old, married for years. Menstruated first at thir- very four weeks, five or six days me; complained of pain during en- w. Has given birth to three chil- first, eleven years ago; last, two ago. Labors normal. No miscar- About seventeen days before pre- herself at the clinic she had an at- f cramping pain in the abdomen, lasted about six hours. During ttack she vomited twice. Was by her physician and improved. ays later she had another attack of the abdomen, and some diarrhea. mily physician again prescribed for d she again improved. Since this ttack she complained of general ess, loss of appetite, general indis- n, and claimed she was unable to to her household duties. Shortly he second attack she was curetted. resented herself to the clinic Octo- 1904. Stated that five weeks ago d last menstruated, but for one day which was the first time that she er menstruated so short a time. temperature at that time was F. General appearance was fair. mplained of pain and tenderness lower portion of the abdomen. Tu- bout two inches in diameter was found to the right of the uterus. This was fairly sensitive and apparently slightly fluctuating. A diagnosis of extra-uterine pregnancy was made, and on October 10, 1904, the abdomen was opened, and it was found to contain a small amount of fluid blood, and the tube was found the seat of an ectopic gestation, which was removed. The abdominal wound was closed, and the patient made an uneventful recovery.

Case 2.—Miss S., twenty-three years of age, single, presented herself at Lebanon Hospital, October 17, 1904, stated that she had never had any illness previous to the present one, which dates from September 11, when her menses appeared one week after the usual time. On careful questioning she stated that she thought she had been pregnant, and had taken medicine which she believed was the cause of the appearance of the menses. She stated that there had been no mechanical interference. The flow continued, more or less irregularly, until she entered the hospital. Shortly after it commenced she noticed a few small pieces of material in the blood discharged, and the physician she consulted curetted her, believing that she had had an incomplete abortion. Following curettage, she complained of slight pain in the left side, and had quite a good deal of fever. On examination there were decided evidences of inflammatory disease, involving the pelvic structures, and it was believed that she had pyosalpinx on the left side, and very probably an extra-uterine pregnancy on the right. In spite of the fact that she had never had severe fever; temperature was about one hundred, and her general appearance fair.

October 20, the abdomen was opened, and the above diagnosis confirmed. The infection was so severe and the clots in the ectopic so fetid that the abdomen was drained. She made an uneventful recovery.

Last winter it was my fortune to operate on seven extra-uterine pregnancies in five weeks, and I believe that was quite largely due to the fact that at Lebanon Hospital sepsis following abortion and pregnancy at term are admitted. Several of these cases of extra-uterine pregnancy were believed to be sepsis following

abortions, as will be noted was the case in the two histories just cited. This diagnosis is justified, when superficial examination of the symptoms is made. For in both cases you have symptoms of early pregnancy. In both cases you have a discharge, frequently continued some time; usually in extra-uterine pregnancy the escape of blood is not excessive, but that is not always the case. In one instance I found it necessary to tampon the uterine cavity to prevent the patient from bleeding to death. In both extra-uterine pregnancy and sepsis following early abortion, you have a slight rise of temperature, and you have in both instances the escape of more or less solid material and clots, which many times are not very carefully examined. Of course, in an extra-uterine case you would never find a fetus.

In my experience one of the most important symptoms of extra-uterine pregnancy is a slight irregularity in the menstrual flow, and when the flow comes it is of very short duration at first. Another important one in quite a large percentage of cases is cramp-like pain, which may be very intense in one side or the other, associated with fainting, or a condition very closely approaching it; at the same time there is usually a discharge of blood from the vagina. The patient usually recovers from this attack, and in from five to ten days has another very similar one, again recovers, and again the attack returns. These attacks become more and more severe as time goes on, and if allowed to persist will frequently cause the patient her life. With these attacks there is a marked blanching of the face, which is usually the result of the abdominal shock, due to the escape of blood into the peritoneal cavity. In more rare instances, and always late in the disease this blanching is also due to loss of blood.

It is needless for me to give a description of a classic case of extra-uterine pregnancy, as my idea is simply to throw out a few hints to assist in making a differentiation between extra-uterine pregnancy and early abortion.

59 West Fifty-Fourth Street.

[Written for the MEDICAL BRIEF.]

Uterine Polypi.

BY H. HUGH HELBING, M. D.,

Professor of Gynecology and Abdominal S gery in the American Medical College. St. Louis, Mo.

These growths are of two gene classes, determined pathologically. Th are either glandular or fibrous. The f mer, also, denominated mucous polyp usually develope from the cervix, origi ally, and are due to a proliferation of t cervical glands. The latter, as a rule, iginate as sub-mucous fibroids in the fu dus, or body, of the uterus, and are gra ually forced downward during their d velopment. It is of this form of polyp to which we wish to direct your atte tion.

The causes of fibroid polypi are son what obscure. They may be due to sor irritation of the uterine wall. Negro are more apt to be afflicted with fibroi and age, also, is a predisposing cause, f they usually appear about the time t patient is approaching the menopau The reason for this is the fact that th are slow in growth, requiring eighteen twenty years before they attain sufficie size to cause disagreeable symptoms.

A uterine polypus is manifested by tw leading symptoms, pain and hemorrha The former is produced by the contra tions of the uterus in its efforts to exp the tumor. The latter are due to a thi ning of the lining membrane, and a co sequent exposure of the uterine vesse Besides menorrhagia, metrorrhagia a dysmenorrhea, the patient may suff from pressure symptoms, due to encroac ment on the bladder, or rectum, so t patient may complain of pain in the sa ral region, reflex headache, etc. She ma have lost so much blood as to exsangui ate her, leaving her exhausted and an mic. The diagnosis should be made bi-manual palpation and inspection. the growth occupies the uterine cavity an is small, it will be difficult to determi whether the wrong be polypi or e dometritis; it may be impossible, u less we can introduce the finger hig enough in the cervical canal, to feel t growth. If it is sufficiently large, say t

a walnut, we might with a sound
ne the diagnosis by outlining the
and its pedicle. With the sound
an increased depth of the uterine

nately, by the time the growth
sufficient size to occasion trouble
atient, the polypus presents in the
canal so that we may discern it
ection, or it may be seen by di-
the canal. According to my ex-
e there is no relationship between
of the growth and the amount of
hage it will produce. The very
t, perhaps only the size of a pea,
use as much hemorrhage as one
of an orange.
the tumor is attached to the cer-
occupies the vaginal canal, the
is is simple.
g the complications that may be
ered is, first, pregnancy. While,
le, the growths produce sterility,
exception occurs once in a while.
tient seldom carries to full term,
r, but in any case delivery is often
ated, and the patient's life is en-
d.
rene may supervene if the pedicle
ricted in any way, such as by tor-
after the tumor is expelled, the
contracting down around the pedi-
shutting off the circulation.
s may occur, either during the pro-
removal or following gangrene of
wth.
treatment will be one of three
either medicinal, electric, or sur-

g the line of medicinal measures
such as will assist Nature. If the
is up in the uterine cavity we
ive ergot, or ustilago maydis, to
e uterine contractions, and force it
f hemorrhage is severe we may
he uterine cavity with iodoform
which will stimulate contractions.
mia exist, administer soluble ci-
of iron, or the peptomanganate;
ny other medicines that may be in-
l.
tric treatment is more of a pallia-
ture than curative, looking to time
menopause, when we hope the
s will begin to atrophy and hemor-
ease. However, this rule is more ap-
plicable to other forms of fibro-myoma than to the sub-mucous, or to polypi. Suffice it to say that galvanism, positive pole active, and the use of ten to twenty milliamperes may be used for checking the hemorrhage. The only curative measure that can be instituted with any degree of success is surgical in its nature.

The reason for presenting this subject to the readers of the BRIEF is the fact that I recently secured one of the largest polypi that I have ever seen on record, and a picture of which I herewith present.

The specimen measures twenty-two centimeters (nine inches) long, and eleven centimeters (four and one-half inches) in diameter. The longest diameter of the pedicle, which was ovoid in shape, was two centimeters. It was attached to the left lateral border of the external os.

The patient, who was thirty years of age, was being treated by Dr. J. L. Ingram, who had observed it protruding from the vulva the day previous to its expulsion from the vaginal canal. At first appearance we thought it might be an inverted uterus, but upon closer examination we located the cervix and pedicle of the growth. It had evidently been

expelled from the uterine cavity during a period of two or three days, all of which time there were hard labor pains. We merely ligated the pedicle, after transfixing and severed it. The patient recovered promptly. Examination with the microscope of sections of the growth showed it to be a fibroid, and non-malignant. Other methods of severing the pedicle are by torsion, or with the ecraseur, usually adopted where the growth is attached high up in the wall of the cervix, or body of the uterus.

4235 West Belle Place.

[Written for the MEDICAL BRIEF.]

A Contribution to the Pathology of Alcoholic Neuritis.

BY HARLOW BROOKS, M. D.,

Assistant Professor of Pathology in the University and Bellevue Hospital Medical College; Curator to Bellevue Hospital (4th Div.); Pathologist to the Montefiore Hospital for Chronic Diseases; Fellow of the American Association Military Surgeons; Member of the Neurological Society; Pathological Society; Fellow of the Academy of Medicine; etc.; etc. New York City.

James Jackson, of Boston, in his paper on "A Peculiar Disease Resulting from the Use of Ardent Spirits," published in 1822, first described alcoholic neuritis. Magnus Huss, in 1852, in his classical work on chronic alcoholism, described the condition much more fully, and ascribed the symptoms of this peculiar type of paralysis to lesions of the central nervous organs. This theory held for a considerable length of time, until investigations of the peripheral nerves established the presence of lesions here, the first of these cases being published by Dumesnil. Numerous observations by subsequent investigators showed the constancy of these peripheral changes, and now the conception of the disease became that the peripheral lesions were the basis of the paralysis, an idea that is still generally advanced in nearly all the text-books, most of which still classify alcoholic neuritis as a primary condition of the peripheral nerves, and generally occurring without lesions of the central nervous organs, except such secondary ganglionic alterations as necessarily follow degeneration and death of the peripheral portion of th nerve fibers.

According to this idea, the disease, a regards its pathology, is generally su divided under two classifications, namel a parenchymatous neuritis, in which th earliest or chief alterations are in th nerve fibril, that is, degeneration of th axis cylinder process and interstitial typ in which hyperplasia of the endoneuriu and perineurim are primary; pressur atrophy following in the axis cylinder pr cess. It is, also, generally stated tha these changes are found independent o any alterations in the brain and cord; i other words, that the condition is purel a peripheral one, and that it is never, o rarely, accompanied by degenerations i the spinal cord and brain.

The great impetus given to researc concerning changes in the ganglion ce following the announcement of the "Neu rone Theory," and the important contribu tions of Neisl, by means of which it wa made possible to study with at least som degree of accuracy the finer and earlie changes in the ganglion cell, produced a once a large number of studies concernin the alterations in the nerve cells in alc holism. Van Giesen, Ewing, Berkeley and many others, showed definitely tha alcoholism produces changes in the gan glion cells of the cerebral cortex, of th spinal cord and spinal ganglia, whic while of no definite, or specific type, wer such as to seriously interfere with th proper function of those cells, and whic if continued, must eventuate in death, o such serious crippling that axis cylinde degeneration must follow.

Now, accepting this incontrovertibl evidence, we are forced to the conclusio that either the neurone theory is wholl erroneous, or that those alterations in th ganglion cells, in cases of chronic alc holism, must cause degenerations of th axis cylinder processes in the tracts o the brain, spinal cord and peripher nerves.

With the view of substantiating o overthrowing this theory Lambert and have been conducting a series of invest gations on; first, cases of typical alcohol neuritis, occurring, as the disease mos frequently does, in young women; an second, a series of consecutive cases o

y chronic alcoholism, with the
n these instances of ascertaining
urrence of degenerated fibers with-
ious clinical manifestations.
d very briefly, we have found in
s of alcoholic neuritis marked de-
ive changes in the cortical cells of
ebrum, particularly in the motor
accompanied by degeneration of
ing fibers in the internal capsules,
descending columns of the spinal
ot a true tract degeneration, but
isolated and somewhat widely
ed fibers.
e spinal cord extensive cystoplas-
eneration has been shown in the
n cells of the anterior horn, those
entro-lateral group being specially
and degeneration of isolated fibers
nterior nerve roots being invaria-
nd.
ional degenerated fibers have also
und quite commonly in the ascend-
ts of the spinal cord, particularly
nore pronounced cases, this degen-
being undoubtedly accounted for
rations, sometimes very marked
the ganglion cells of the posterior
nglia.
quite unnecessary to say that the
in the peripheral nerve trunks
pical in each of these cases, for
se they would not have been se-
or this series of studies, and from
ve lesions it is perfectly apparent
peripheral nerve changes are con-
upon, and not primary, to degen-
in the ganglion cells of the spinal
d posterior root ganglia, and that,
y to the rule, these cases usually,
ys, show degeneration of the de-
g fibers of the brain.
r second series of cases we were
show in a considerable percentage
descending degenerations in the
cord and, occasionally, in the as-
tracts, as well; sometimes with
netimes without degenerated fibers
peripheral nerve trunks, which are
mmonly involved in alcoholic neu-

these facts, which are corrobor-
numerous other investigators, it
perfectly clear that we must modify
nception of alcoholic neuritis and
theory corresponding to the incon-
testible lesions, and confirming the original conception of the earlier writers; namely, that the disease is of central origin, due to primary ganglion cells degeneration, especially of the cells of the anterior horns and posterior root ganglia, caused by alcoholic toxemia.

There can be no doubt but that this association and interdependence of central and peripheral changes explains satisfactorily the "Korsakoff Syndrome."

Though we believe that these are the primary alterations of all cases of parenchymatous alcoholic neuritis, it is quite possible that certain cases of primary interstitial neuritis do exist in alcoholism; perhaps from the proliferation of the endoneurium and perineurium following the chronic inflammation of the arteries nourishing the nerve trunks. It is, however, most probable that the interstitial hyperplasia is, in most cases, due to a primary degeneration of the nerve fibers, and a compensatory proliferation of the connective tissue of the trunks.

44 West Ninth Street.

[Written for the MEDICAL BRIEF.]

Implantation of Omentum in Inguinal Hernia as a Radical Cure.

BY WALDO BRIGGS, M. D.,

Professor of Surgery and Dean of Faculty of St. Louis College of Physicians and Surgeons; Consulting Surgeon St. Louis City and Female Hospitals; Chief Surgeon Jefferson Hospital; Member American Medical Association and St. Louis Medical Society, St. Louis, Mo.

In operation for the radical cure of hernia, especially the inguinal variety, I have had, as no doubt others also have had, great difficulty in making a permanent cure in a great many cases, no matter what method was used. It is conceded by the majority of surgeons, I believe, that the most satisfactory results have been obtained by the Bassini method. Previous to two years ago I invariably used this method, with varying success, in a great number of cases. The results were satisfactory in every respect, but in some there was a return of the hernia, although the technique was quite correct, I am sure, and for this reason I have devised a new method, which makes a permanent

result, and also simplifies the operative measure. It consists simply in the usual procedure as to incision, with excision of the sac and withdrawal of the omentum, which is secured in the inguinal canal by fixation. In dealing with the sac it is necessary to transfix the neck with double ligature, and thereby ligate the two sections of the neck of the sac before fixation. After this has been done we withdraw the omentum through the inguinal ring, fasten it in position by a suture through the pelvic ring. I have used this method in a number of cases in the past two years, and the results have been very gratifying. I invariably use silk for transfixation and ligature, the same material in the closure of the wound, as my experience has taught me that material such as catgut is too rapidly absorbed, causing frequent failure.

The following cases are of surgical interest:

Hysterectomy Following Perforation of Septic Uterus With Either Probe or Curette.—On entering hospital patient was in a most critical condition, emaciated, temperature subnormal, pulse one hundred and twenty, weak and thready; respiration, twenty-eight; facial expression, pinched and anxious.

History.—Abortion at fourth month of gestation, occurring about eight days previous to consultation. A curettage about three or four days after passing fetus for retained placental tissue. Examination revealed abdomen distended, dullness over entire pelvic cavity, uterus enlarged and exuding a copious purulent discharge through the vagina. Uterine sound readily passed beyond the depth of the handle, evidently into the abdominal cavity. Abdominal exploration was immediately decided upon, and the patient was quickly prepared for operation. The usual incision was made and the uterus lifted into the incision, a perforation through the fundus presenting, supposedly made by probe or curette. The tissue of entire organ was almost disintegrated, and the pelvic cavity was filled with pus. With the entire field in view we passed the forceps through the vagina, clamping on either side of the uterus. After remov we irrigated the cavity with normal sa solution, established drainage through v gina and abdomen, closed the incisio Patient was so extremely weak that stim ulants had to be administered frequentl during the operation. Injections of no mal salt solution were made at interval of six to eight hours during the fir twenty-four. She made a good recover and is now in excellent health.

An Unusual Appendix.—Boy, fourtee years of age. The little patient wa brought to the hospital for treatment recurrent appendicitis. History of cas revealed attacks at different intervals fo several years. During attacks temper ture would range from 103° to 105° Examination elicited tympanitis over en tire abdomen, with dullness over lumba and hypogastric regions.

Operation by vertical incision over bo der of rectus muscle. On entering cavit found extensive inflammation, with adh sions, the appendix being completely bu ied. Enucleating appendix, found it e tended into the hollow of the sacrum then over its rim to the left inguinal r gion. Length of the appendix, eleve inches. Incision closed after usua method. Patient made an uninterrupte recovery, incision healing by first inte tion.

500 North Jefferson Avenue.

[Written for the MEDICAL BRIEF.]

The Use of Bromide in Sea-Sickne and in Combination with Drugs.

BY CONSTANCE V. CURTIS, M. D.,
Phoenixville, Pa.

Bromide given, five to ten grains, thr times daily, a few days before sailin quiets the vomiting centers.

If the sea-sickness develops later t bromide should be given in effervesci draughts.

Bromide of potassium given in com nation with quinine, or salicylic acid, w prevent cinchonism; is, also, used to all the depression and nausea which foll the use of opium.

E MEDICAL BRIEF

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[Written for the MEDICAL BRIEF.]

rlet Fever—Its Etiology and Channels of Infection.

SEPH PRIESTLY, B. A., M. D., D. P. H.,
Officer of Health, Lambeth Borough;
orary Secretary of the Incorporated
ociety of Medical Officers of Health,
London, England.

ere is now strong and increasing evi-
that, at least, the later desquama-
f scarlet fever is not infectious.
ological researches indicate that the tonsillar and buccal mucus, not only in the early, but also in the later, stages, is the principal source of infection in scarlet fever (as well as in diphtheria)."

Such is the latest *dictum* of the Society of London Medical Officers of Health, and the standing of the society, and the professional eminence of its members, are sufficient guarantees that careful consideration has been given to the subject of the infection of scarlet fever, before such resolutions were approved as the society's opinion.

Such an opinion is warranted to stagger the old practitioners, even to shock somewhat the young practitioners, and would certainly cause those of the profession who are dead and gone to turn uneasily in their resting-places were they to hear of such advanced doctrines being held by any one! Bacteriology is, in part, to blame, coupled with more exact and careful investigations into the sources of the alleged infection-channels of scarlet fever.

Scarlet fever (or scarlatina, as it is sometimes designated) is a specific infectious disease, due to the entrance into the body, from without, of a germ (or germs) derived from a previous case of the same disease (human or bovine). The *incubation* of the disease is short, varying from a few hours to a few days (generally three to four days); and the *invasion* is sudden, consisting of high temperature, headache, vomiting (sometimes), sore throat (palate and tonsils), flushing of face, suffusion of the eyes; followed by the appearance, in a day or two, of a rash, consisting of fine, red points, closely aggregated together over wide areas of skin, which has a flush all over it. This rash appears, generally, on the second day, is well-marked on the third to fourth day, and begins to fade on the fifth to sixth day, to be followed by desquamation of the skin on, or about, the ninth day; such desquamation lasting, at times, as long as six to eight weeks.

The rash begins on the neck, face and chest, extending to the trunk and limbs, and disappears, momentarily, on pressure. The glands at the angle of the jaw are enlarged and tender during the early stages of the disease; whilst the tongue

rapidly becomes furred (with enlarged papillæ), giving rise to the well-known "strawberry appearance."

The complications and sequela of the disease are well known, and are simply mentioned as important factors in dealing with the morbidity (as distinct from the mortality) of the disease.

Scarlet fever was first recognized as a separate and distinct disease about two and one-half centuries ago, and it is to Sydenham and Fothergill that this honor belongs; although the disease must have been scattered throughout Europe (more especially the Northern portions) for many centuries past, appearing in epidemic form every few years, and with a malignancy which the medical men of today can hardly realize, but which must have caused a mortality rate of twenty to thirty per cent (as compared with the present three to five per cent).

The Registrar-General of England first separated the statistics of scarlet fever and diphtheria in 1856, and taking the returns since then, as already published, we find as follows, for England and Wales:

Scarlet Fever—Death rate per million living at each year of age under five:

Decennia.	Under 1 year.	1 yr.	2 yrs.	3 yrs.	4 yrs.	Total under 5.
1861-70	2026	5172	5907	5687	4667	4624
1871-80	1414	3965	4535	4286	3469	3489
1881-90	671	1896	2112	2048	1706	1669

Scarlet Fever—Death rate per million living at all ages, and at quinquennial groups of ages, up to twenty-five years of age, subdivided into males and females:

1. Persons:

Decennia.	All ages.	0 —	5—	10 —	15 —	20-25.
1861-70	972	4621	2182	501	153	93
1871-80	716	3489	1515	325	104	63
1881-90	334	1669	762	153	41	26

2. Males:

Decennia.	All ages.	0 —	5 —	10 —	15 —	20-25
1861-70	1011	4745	2220	468	149	80
1871-80	750	3591	1554	318	107	55
1881-90	346	1712	758	148	43	23

3. Females:

Decennia.	All ages.	0 —	5 —	10 —	15 —	20-2
1861-70	934	4503	2144	534	157	105
1871-80	683	3387	1475	330	101	70
1881-90	322	1627	765	158	40	28

From the above three tables the follo ing important and interesting conclusio may be drawn:

(*a*). The annual mortality from sc let fever has fallen steadily and marke from nine hundred and seventy-two three hundred and thirty-four per milli of the population at all ages, during period of thirty years.

(*b*). The fall applies to both ma and females, the males from one thousa and eleven to three hundred and for six, and the females from nine hundr and thirty-four to three hundred a twenty-two, respectively, per million the population at all ages.

(*c*). The mortality from scarlet fe is higher amongst *males* than amon females; both at all ages, and also in c dren under ten years of age.

(*d*). The mortality from scarlet fe is higher amongst *females* than amon males, in the case of persons aged years and over.

(*e*). The mortality from scarlet fe in children under five years of age *lowest* in those under one year of age, a *highest* in those between two and th years of age.

(*f*). The disease is a disease of c dren, and extremely fatal to those tween the ages of one and five years.

As to the cause of the steady marked fall in the annual mortality fr scarlet fever, there are two opinions, (1). Diminished prevalence of the ease, and (2) diminished severity of disease in recent years. It is difficult decide which of these two views is correct one, though hospital statist and the recent notification statis (which are now available, since the ease has been notifiable), appear to fa the latter. Thus, the returns of the L don fever hospitals show a decline the case-mortality (*i. e.*, deaths per cas from twelve and one-half per cent 1872-6, to three per cent (or less) to-d though the numbers of notifications

during part of the time, during the disease has been notifiable in) have steadily increased, year by

Paris statistics, too, show a persis- low mortality from scarlet fever, back as records are available, *i. e.*, the past twenty-five years; a con- of things partly explainable by nparatively small proportion of n under ten years of age to the population. In diphtheria, the op- obtains. American statistics tell ne story, viz.: A lessened mortality carlet fever, and the published re- rom Christiania, where notification sted since 1860, show that there e mortality has varied from an of 17.8 and 14.3 per cent during nd 1870-9, to 9.04 and 5.56 per cent 1880-9 and 1890-9, respectively.

probable that both views are cor- nd that the decline in mortality carlet fever is due to both dimin- prevalence and diminished viru- Whether or not improved sanita- nd hospital isolation account for ady diminution in the prevalence ulence of the disease, it is difficult le definitely, and the subject will rred to again.

incidence of scarlet fever on the ion at different age-periods is ob- from the notifications received, hich it appears that the greatest ce is on children in their fifth becoming rapidly smaller and with the advance of years. The to attack is small in the first life, though the mortality-rate at ticular period of life is very high. hout the whole period of life the sex is more liable to the disease e male sex, but the attacks in the re, as already pointed out, more to terminate fatally, both at all l, also, in children under ten f age. Forty-five per cent of the of scarlet fever are amongst chil- nder the age of five years.

is way there is a double gain in ng a child from scarlet fever in- especially during the first few f life. Every year of escape ren- e child less and less susceptible, ter a certain age the child is prac- tically insusceptible; whilst, when the disease is contracted, every year that the attack is put off reduces the danger to life that such attack brings.

The seasonal prevalence and mortality of the disease deserves notice. The mortality is greatest in October and November, and least in March and April, at least so far as England and Wales are concerned; though the opposite is found to be the case in New York. The prevalence of the disease follows the same lines, but to a more marked degree, showing that when most prevalent the disease is least fatal, and *vice versa*. A condition of things due to the large numbers of mild cases that occur during epidemic times. In fact, these mild cases (many unrecognized) prevent a true mortality rate being obtained, and render it probable that the present rate is much below three per cent. These mild (unrecognized) cases are so well known that there are some physicians who hold that there is a form of scarlet fever without eruption, the so-called *scarlatina nil eruptione*. This is doubtful, however. There is no doubt, on the other hand, as to these mild cases causing the disease to spread in schools and elsewhere.

Meteorological conditions do not appear to affect either the prevalence or mortality of scarlet fever, though some observers (Longstaffe and Gresswell) think otherwise, holding that there is an *inverse* relationship between scarlet fever and the annual rainfall, and a *direct* relationship between the disease and a large amount of aqueous vapor in the air, especially with a concurrent diminished barometric pressure).

One attack of scarlet fever is, undoubtedly, protective, rendering the patient immune for life, as a rule.

As to the bacteriology of the disease. Different views are held. Thus, Klein, Fränkel and Freudenberg describe the germ as a *streptococcus*. Klein claiming that his own particular streptococcus, when injected into calves, causes death with lesions in the kidneys, indistinguishable from those seen in human scarlet fever. He describes it as non-motile, arobic, or anarobic, non-spore-forming and easily killed by drying and by exposure to sunlight. Edington, on the other hand,

states that the germ is a *bacillus*, which, when injected into rabbits and guinea pigs, causes erythema of the skin, followed by desquamation. Other observers, again, claim that the germ is a *protozoon*.

In view of these different expert opinions, it is safer to regard the actual germ, or germs (*i. e.*, the *causa causans*), of scarlet fever as not yet discovered.

Marmorek has made an anti-streptococcic serum, which is stated to give good results in the treatment of scarlet fever.

Whatever the exact germ, or germs, may be, the infection is given off in the breath (mouth and throat secretions), and from the skin, both in the early stages of the disease (even the prodromal stages) and, also, in the later, though it is probable that the desquamating skin is not infectious. The infection may last as long as six to eight weeks, *i. e.*, during convalescence, as well as in the acute stage; it being greatest in the latter case. The length of infection, due to (1) the persistency with which the germs cling to the follicles of the throat, and (2) the frequency with which complications and sequela are met with, more especially of the kidneys, middle ear, nose, etc. In this connection it may be that the urine is infectious, as it has been proved to be in typhoid fever.

With regard to the non-infectivity of the desquamation of scarlet fever, an experience of the writer of this article is unique. During the time of the smallpox outbreak at Leicester in 1891-3, it was decided to empty the scarlet fever hospital, and, consequently, not less than one hundred and twenty children, in various stages of desquamation after scarlet fever, were sent to their homes in the various parts of the town. Such a condition of affairs was favorable to a widespread outbreak of the disease, many *foci* of what is generally regarded as infectious skin, being scattered throughout a population of one hundred and eighty thousand and sixty-six persons (estimated), of whom one-fourth were children under ten years of age, and one-ninth children under five years of age. The disease ought to have spread broadcast. What are the facts, however? No single second case arose at any of the houses to whic the one hundred and twenty childre were sent, although they were careful watched for a period of three month This was a serious and dangerous exper ment, that had, compulsorily, to be mad and the results are significant. It ma be that it was a pure coincidence, an that were the experiment again made, u der different epidemic conditions, the r sult might be quite the opposite. Assur ing, however, that the experiment just fies a conclusion being drawn from th result, what ought that conclusion to be The farthest we can go is to say tha "particles of dead desquamating epith lium, or mucous membrane, are not infe tious *per se*, but that such particles ma act as carriers of infection, in the sam way as the hairs, or clothes, of a patie may; in other words, a desquamatin scarlet fever patient is not, necessaril a source of infection to others; but, o the other hand, a desquamating patie may be infectious, despite such desqu mation."

This is the only logical conclusion th can be drawn, and the only one that ca be safely drawn at all, as far as prese knowledge goes. This represents th opinion of the advanced school of medic experts in England (medical superinten ents of hospitals, medical officers health, etc.). There is no positive ev dence that desquamating epithelium *p se*, is a source of infection, and too mu importance has been attached to it in t past. Even the streptococcus of Kle or the bacillus of Edington have n been found in the desquamating cutic Further, the desquamation is the aft effect of the erythema that is the mo important diagnostic sign (though not ways seen) of the disease, and represen the death of the outermost layers of t cuticle, due to the trophic chang brought about by the scarlet fever p son, which circulates in the blood. Co pare, in this respect, the greater or less desquamation that takes place in all cas of erythema, especially marked in t so-called *erythema scarlatiforme desqua ativum* (a skin disease of a non-infectio nature), and least marked (as far as t eye can judge, but well-marked mic

ally) in the transient teething rat-
infants and children.
nnels of Infection.—These may be
d into two classes: (*a*) Direct,
person to person: (*b*) Indirect,
h the medium of clothes, food, ani-

Direct Infection. The throat and
ecretions in the early stages are
infectious, and the poison is read-
rried from person to person by the
, kissing, etc.; the commonest mode
pagation of the disease from one
to another, *e. g.*, in houses, at
s, etc. This mode of infection is,
es, difficult to combat, as the disease
e so slight as to be not recognized,
ongly diagnosed, as a trifling, non-
ous, catarrh or sore throat. In
hese mild, unrecognized and undi-
d cases cause the disease to be al-
with us, assuming, at intervals, epi-
proportions whenever the suscep-
lement (children between three and
ears of age) accumulates.
it be claimed that this mildness of
s the result of the efforts made in
st and still being made by sanitary
rities to prevent the disease? What
as general sanitation, hospital iso-
etc., played in bringing about such
e of affairs, if this be so? Unfor-
ly, no statistics are to hand to en-
a satisfactory conclusion to be
. The result is that two extreme
is have recently arisen in England,
ese may be called the *Hospitalites*
e *Anti-Hospitalites*. The former be-
that hospital isolation is all-im-
t in battling with scarlet fever, and
tter holding that hospital isolation
ard to this disease has proved a
(and has been, consequently, a
ss financial outlay). Between these
xtreme schools are all the interme-
views held by different experts, and
. For the present, at least, I recom-
the readers of this article to re-
er the advice given centuries ago:
edio tutissimus ibis."
. Indirect Inspection. The medium
gh which infection may be carried
. It may be (1) food, (2) clothes,
ng, etc., (3) animals, or (4) other-

Let us consider these various media somewhat at length, taking the most important, or, at least, the most interesting, first):

(1). Food (chiefly milk). It is now well-established that the poison of scarlet fever (be it germ or toxin) is, at times, conveyed to human beings through milk; the milk being infected either by a previous scarlet fever patient, or by the cow itself. Milk is, undoubtedly, a most suitable medium for the growth of the poison, which rapidly multiplies, when it gains access thereto. Such infected milk carries infection broadcast amongst its consumers, and an outbreak, or epidemic (thereby caused) is recognized by the suddenness of onset, the incidences of attacks, and the rapidity with which the disease is arrested when the supply of infected milk is stopped. The persons affected are the consumers of the milk, and comprise, chiefly, therefore, children and invalids; at least, as a rule.

The scientific interest connected with milk-borne scarlet fever rests on the opinions (expressed by some) that a bovine disease is capable of being transmitted through milk to human beings, in the form of scarlet fever.

An outbreak of scarlet fever in London (and elsewhere) in 1885 was traced by the officials of the English Local Government Board to a disease of cows on a farm at Hendon. The cows were found to be suffering from a vesicular eruption (with ulcers) on the teats and udders, from which Dr. Klein, the board's bacteriologist, obtained his *streptococcus*, similar in all respects to the streptococcus which he obtained, also, from scarlet fever patients (diseased tissues and organs). Cultures of this streptococcus (obtained from man), when injected into calves, caused death, with renal complications indistinguishable from those found in human scarlet fever, and when injected into newly-calved cows, caused ulcers on the teats, with other symptoms. This bovine disease is called the Hendon disease, and appears to be the same as, or nearly allied to, scarlet fever in man; at all events, the Hendon disease in cows causes the scarlet fever in man, under certain conditions. Other outbreaks of scarlet fever have since been traced to

bovine diseases, which are, if not the same as, at least similar to the Hendon disease, *e. g.*, Macclesfield (1889), Sutton Coldfield (1891), Glasgow (1892), etc.

Significant as the above facts appear, it is only fair to state that there are experts who maintain that, in the instance quoted, the scarlet fever outbreaks arose through milk, which was contaminated and infected by previous *human* scarlet fever, and that the bovine disease was *vaccinia*, and in no way connected with the scarlet fever.

Many veterinary surgeons maintain that there is no disease in cows similar to scarlet fever in man, or in any way comparable with it.

Whichever view be taken, and it must be remembered that the "facts" connected with the Hendon outbreak satisfied the chief officials of the Local Government Board of England, there can be no shadow of doubt but that scarlet fever can be transmitted from person to person through the medium of milk (and what applies to milk, applies also to butter, cream and cheese). In investigating outbreaks of scarlet fever this channel of infection must be borne in mind, and inquiries made at the dairies and farms suspected, including a careful and minute inspection of both the employes and the cows.

2. *Clothes, Bedding, etc.*—The poison of scarlet fever is persistent, and remains attached to clothes, bedding, etc., for long periods of time, retaining its vitality. In this way the disease has been spread from person to person through the medium of clothes, bedding, etc., which have been infected by a previous scarlet fever case and not efficiently disinfected afterwards. All health officers, in the course of their experience, are cognizant of many such sources of infection, more especially where a garment worn by a scarlet fever-infected child, previous to such child being removed to hospital, has been put away carefully without previous efficient disinfection, and brought out again when the child returns home, causing a fresh attack, or attacks, of the disease in others (brothers and sisters or friends). Laundries and dress-making establishments may spread the disease. The lesson to be learned is that *efficient*, prompt disinfection is required in connection wi scarlet fever, even when the attack is mild as to be almost unrecognizable.

3. *Animals.*—Apart from the questi of the transmission of scarlet fever fr cows to man, it must be remembered th the poison may adhere to the hairs a fur of pet animals, and may be there transferred from person to person. Ca and dogs, which are allowed to be fo dled by children suffering from scar fever, and then to mix with other ch dren, carry the disease oftener than supposed. In the same way flies m mechanically carry infection from pers to person, as they do in cholera and phoid, and in, probably, other diseases.

4. *Otherwise.*—Toys, pictures (a other), books, etc., also, deserve attentio as common vehicles by which the pois of scarlet fever may be carried from p son to person, and the necessary preca tions should at all times be taken to p vent such sources of infection.

"Return" Cases of Scarlet Fever a Post-Scarlatinal Diphtheria.—No artic dealing with scarlet fever is comple without mention being made of (*a*) "R turn" cases, and (*b*) post-scarlatinal dip theria.

(*a*) *"Return" Cases.*—When a fre case of scarlet fever (or other infectio disease) occurs in a house (previous infected) within a certain definite ti (two, three or four weeks) of a p tient's being returned there from a h pital, convalescent from the same disea it is known as a "return" case, *i. e.*, secondary case, and is supposed to be, some way or other, connected with t return home of the previous case. Su "return" cases are well known to health officers, and are attributed gen ally to maladministration (*a*) of the h pital authorities in prematurely discha ing their patients, or (*b*) of the sanita authorities in disinfecting invaded hous and infected clothes and bedding, e The former view is supported by hea officers, who quote the fact that patie are, at times, discharged from the hospi with "peeling" skins, "running" noses ears, inflamed throats, etc.; whilst t latter view is supported by medical perintendents of infectious hospitals, w quote the fact that "return" cases oft

ır after some garment, or some article bedding (or clothing), has been ught out for use of the particular pa- t, or patients, on their return from ospital; such articles having been put y in an insufficiently-disinfected state.

he number of "return" cases varies siderably under different conditions, may, even in a well-regulated, and efully-administered hospital reach as a figure as three to five per cent of total cases discharged.

heoretically, such cases should not oc- at all; *practically*, they do. Indeed, difficult to see how they are to be vented, as they appear to depend upon rlety of causes, *e. g.*:

Premature discharge from hospital atients with "running" ears or noses, eling" skins, sore throats, etc.

Transference of convalescents direct n acute wards to their homes, thereby wing the infected air, which fills the s of such returned patients, to infect rs with whom they may come into act—mechanical carriers of infection.

Overcrowding in the wards of hos- ls, leading to delayed elimination of on from the patients, or the re-infec- of the patients, or to other infecting litions.

Imperfect, or inefficient, disinfection by the hospital authorities, *e. g.*, nes, hair etc,; (*b*) by the sanitary au- ities, *e. g.*, bedding, clothes, etc.

Unknown factors, still waiting dis- ry and investigation.

he above are the generally-accepted s as to the reason for "return" cases, the more experience one has the more cult it becomes to decide, definitely satisfactorily, as to the cause, or es, of such "return" cases; more es- ally, if the view be taken that (at t, late) desquamation in scarlet fever ot infectious, and that, consequently, nt "peeling" of the skin in a dis- ged patient does not necessarily mean ger to those with whom such patient come into contact. It is clear that patients with "running" ears, noses, should be discharged from a hospital hout careful precautions being taken he home, or homes, to which such harged patients return. Bacteriologi- , such ears and noses are a suitable *nidus*, in which the germs of the disease may lurk, hidden, in an active state, for a long interval of time, and so cause infection in others.

The seasonal influence of the disease must be remembered in dealing with "return" cases.

(2) *Post-Scarlatinal Diphtheria.*—This is a form of diphtheria that is liable to attack patients who have been in a scarlet fever hospital for a long time, and who are, generally, convalescent from the disease. The age-incidence is the same as, or resembles, that of primary diphtheria, though the fatality is higher, much higher, at times.

The disease is capricious in its occurrence, and may be due to one or more of the following conditions:

1. Insanitary conditions of hospitals (defective drainage, want of ventilation, etc.).
2. Overcrowding of hospital wards.
3. Aggregation of acute cases in hospital wards.
4. Transference of infection from diphtheria to scarlet fever wards by (*a*) medical staff, (*b*) nurses, (*c*) laundry.
5. Mixed infection; a patient suffering on admission into a hospital from both scarlet fever and diphtheria.
6. Contact in hospital with mild, unrecognized diphtheria cases (diagnosed as mild scarlet fever).

Anti-toxin has worked marvels in lowering the death-rate of post-scarlatinal diphtheria; the patients being injected at once, as soon as they show symptoms of the disease. In this way the best results are obtained from the anti-toxin treatment.

[Written for the MEDICAL BRIEF.]

The Principles and Practice of Embalming the Dead.

BY JOHN GEORGE GARSON, M. D. (EDIN.),
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[No. 3.]

We have next to consider the mode of applying externally, preservatives to the body, a branch of the art of embalming

of much importance. For this purpose a strong solution of bichloride of mercury in spirit should be prepared and rubbed well into the skin of the head, about the roots of the hair, with a painter's brush, and the whole of the body should be painted over several times with a mixture of one part of the concentrated sublimate solution to about six or eight parts of glycerin.

If no further injection of the vascular system be required, ligatures may be placed around the artery immediately beyond each end of the double cannula, and tied. The cannular is then to be removed, and the edges of the external opening are to be brought together neatly and sutured closely with fine silk. The operation being completed, the body is to be replaced in the shell, along the bottom of which should previously have been arranged a thick layer of sublimate wood-wool.

In the foregoing description it has been assumed that the condition of the body has been favorable for the operation, and that no hitch has occurred during its performance. Things do not always run smoothly, however, and the operator must be prepared for less satisfactory conditions being present, and for accidents happening, and he must be ready to meet each and every emergency, just as he would do should they occur in the course of a surgical operation he was performing. It is only possible here to mention some of the complications which may confront him and render the operation more difficult.

Perhaps the most frequent complication which occurs in the course of an ordinary injection operation is the rupture of an artery. It generally takes place in the thorax, or the abdomen, and is usually the result of disease of the vessel, or organ, in which it occurs. In such cases one or other, or both, of these cavities must be opened in the manner to be described presently when a *post-mortem* examination of the organs has to be combined with an embalming operation, and the ruptured vessel secured by ligature, or otherwise; in some cases the organ in which it is situated must be removed, or its blood supply ligatured. Rupture of a vessel inside the skull is of little consequence, that being a closed box, and strictly limited in capacity, the extravasation of preservative fluid is small and the operation is not interfered with. In other parts of the body the vessel can more or less readily be got at and tied in which case the rupture does not materially interfere with the operation. Such accidents are, fortunately, not very common when the pressure with which the solution is introduced into the system is kept low. The important point is to recognize when a rupture has taken place so as to be able to deal with it.

The most troublesome cases to deal with are decidedly those in which general anasarca is present. Before attempting to inject preservative fluid into the vascular system, under such circumstances the dropsical condition must, as far as possible, be got rid of, otherwise the solution will not flow through the vessels into the tissues, owing to the coagulation of the albumin in the serum, which immediately results from contact with the preservative, especially if the base be corrosive sublimate, or chloride of zinc. The best course to pursue in these cases is to begin by making the incision in the abdominal wall, to expose the abdominal aorta; then if ascites be present, the fluid contained in the abdomen should be syphoned out with an India rubber tube. While this is being done the limbs should be elevated as much as possible, and then tightly bandaged from their distal extremities upwards towards the trunk with a broad India rubber bandage, such as is sometimes used in the treatment of callous ulcers. The bandaging may with advantage, be carried onwards beyond the limbs and made to include the greater part of the trunk. In most cases the inferior vena cava should be incised and punctures made where necessary, to let the serous fluid escape; the thoracic cavity should, likewise, be tapped from the abdominal opening by puncturing the diaphragm, and any fluid which it contains should be removed. After the condition of the body has been improved as much as possible, the abdominal aorta may be opened, the cannula inserted and the injection of the preservative solution proceeded with. It will be found, generally, that the injection has to be made under considerably higher pressure than

linarily required, and the risk of re of a blood-vessel is correspond- increased in consequence.

uld much difficulty be met with in g the injection to enter the system, y be necessary, after as much pre- ive has been introduced as can be to the arteries, to supplement this aking subcutaneous injections into uscular and cellular tissues at nu- s points over the body, as well as ne cavities. In bad cases it is, per- better to use hydrate of chloral dis- in alcohol and a little water. Cy- of mercury, or a solution of formic rde, instead of corrosive sublimate, oride of zinc solution, as being less to produce immediate coagulation albumin of the serum infiltrating ssues and clogging of the blood-ves-

en death has resulted from the ng of an aneurysm in the thoracic, dominal cavity, the injection should rformed from the ruptured vessel, has to be exposed for the purpose. *ost-mortem* examination of the vis- as well as the preservation of the by embalming, may be required. In case the injection of the vascular n, and the external application of rvative should, if possible, be done the application of preservative solu- to the visceral cavities being post- until after the *post-mortem* exam- n has been made. The latter should ke place before the lapse of twenty- ours after the injection of the vas- system. But circumstances some- demand that the *post-mortem* shall ne first, before any chemicals have introduced into the body. In this the best plan is to begin by making ong incision from the top of the um to the pubes, then to divide the um longitudinally, and forcibly to ate the thoracic walls as far apart ssible, fixing them in this position eans of two pieces of wood placed at end of the sternum. The space thus ned is limited, but by dexterous pulation it will be sufficient to en- the operator to reach the heart and , and to remove them. The aorta ena cava should be divided close to eart, a thread having previously been passed through each and the ends brought to the surface of the thorax, so as to facilitate the subsequent recovery of these vessels. The trachea should be divided just above its bifurcation; in doing so care must be taken not to injure any of the blood-vessels of the neck. The nerves and other structures having been divided, the heart and the lungs are then to be removed carefully, without disturbing their surroundings more than necessary. After their examination has been completed they should be washed and immersed in preservative solution. The esophagus and rectum are then to have double ligatures placed around them (the former just above the stomach), and divided between the ligatures; the digestive tract, with the pancreas and the spleen, are then to be removed; the arteries having been ligatured, one by one, as they are divided. A ligature should be placed on the inferior vena cava, above and below the liver, and on each of the other vessels these are then to be divided between the ligatures and the liver, and the latter removed. The kidneys are to be removed, after their vessels have in like manner been ligatured. The examination of the viscera having been completed they are placed in preservative solution for some hours, and, when the injection of the vascular system has been accomplished, they are to be returned to their respective places. If the brain is also to be examined the scalp is divided from ear to ear over the vertex and drawn forward and backward, with the periosteum and the muscles, and the calvaria is sectioned horizontally, without injuring vessels of the dura mater. In removing the brain the arteries should be divided sufficiently far above the base of the skull to permit of it being easily ligatured. On the examination of the brain being completed it should be placed in preservative solution. The interior of each of the cavities opened, having been carefully washed and dried, a systematic search is to be made for all divided vessels, and such of them as have not already been ligatured must now be secured; the foramina of the base of the skull, also, must be tightly plugged from above with cotton-wool, moistened with a thick solution of gum acacia. A large cannula is then to be introduced

into the aorta and firmly secured; the injecting apparatus having been attached to it, the injection of the vascular system may be proceeded with. Although apparently all the principal vessels have been tied, yet when the injection solution is turned on, it will be found to escape at numerous points where divided vessels have been overlooked, just as takes place in an amputation of a limb when the tourniquet is slackened. These must be secured by ligatures or compression forceps, as rapidly as possible.

In consequence of the loss of preservative solution which inevitably takes place, notwithstanding the pressure with which it is injected has been reduced to the lowest possible point, considerable more will be required than in ordinary cases, where the embalming is done in the first instance; the operation is also greatly prolonged, and much patience has to be exercised in performing it. There is, however, no reason why it should not be successful, if thoroughly and carefully carried out.

[Written for the MEDICAL BRIEF.]

Proctitis.

BY CHARLES J. DRUECK, M. D.,

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Proctitis, or inflammation of the rectum, is quite commonly met with in general practice, and requires careful diagnosis and prompt treatment. Several different varieties are distinguished, although the symptoms in general are much the same in all, and the case frequently terminates in fistula.

Proctitis is divided into acute and chronic varieties, each of which has several forms, according to etiology or development. Thus, the acute consists of the catarrhal, dysenteric, diphtheric, and gonorrheal; the chronic, of the catarrhal, syphilitic, tubercular, papillomatous, and stenosing.

The catarrhal acute form of proctitis is due to intestinal disturbances, and occurs chiefly in children, although occasionally it is found in adults. Usually the mucous membrane alone is involved, l ing congested, even tumefied at times, a the epithelial layer may be shed off du ing the engorgement. In dysenteric pro titis, the whole colon is frequently volved, especially in the tropical varie The rectum, like any other mucous me brane, is liable to the invasion of dip theria, but infection is rare.

Gonorrheal proctitis is more frequent found in women, on account of the clo proximity of the vulva and rectum, and usually the result of uncleanliness, s omy or abscess of Bartholin's gland th has ruptured into the rectum.

The catarrhal chronic proctitis may sult from repeated attacks of the acute, may begin as a deeper and chronic infla mation. Constant reinfection and irri tion, together with a sluggish venous flo tend to prolong any inflammation in t rectum. In aggravated cases, the surfa is granular, with multiple ulcerati points. Hypertrophy of the glands curs, causing papillomatous growt which project into the lumen of the r tum (papillomatous proctitis). When t inflammation extends deeper than the m cous membrane, and involves the areol and muscular tissues around the rectu a constriction results later, from the co traction, and we have a stenosing pr titis.

In adults, proctitis may result from cal impaction in the rectal pouch, ex sure to colds, as sitting on a cold or w seat; foreign bodies in the rectum, ha substances in the fecal mass, as fish bon pins, hulls of cereals; injury from the of the syringe, strong purgatives or senic. bichloride of mercury, irritati suppositories, the extension of inflamm tion or colitis, or the irritating discharg from the bowel above. Esmarch repo a case of proctitis as a symptom of go the rectal inflammation alternating wi other symptoms. Proctitis may also sult as an extension of inflammation fr hemorrhoids, prolapse, or eczema abo the anus. Both acute and chronic proc tis may result from inflammation neighboring organs, as the bladder, pr tate, vagina, or uterus.

Symptoms.—The symptoms vary wi the severity of the attack, and the du tion of the trouble. The chronic for

ess painful and tender than the acute. ensation of weight, heat or fullness ars in the rectum, and may amount tual pain which, in severe cases, may lve the uterus, bladder and sacral re- and even radiate down the thighs. this tenesmus, a constant and in- tual desire to empty the bowel oc- and this continual straining fre- tly produces a prolapse of the mu- membrane, especially in children. Ir- ion of the trigonum vesicæ causes fre- t micturition, or sometimes retention. his time the engorged membrane is ing, perhaps with a mere streaking e passages, or occasionally considera- ischarge of clear blood.

lsey reports a case where this loss ood was the first symptom that at- ed the patient's attention. A case of itis with hemorrhage, without any ne antecedent symptoms, is rare. , mucus and pus are voided. Exam- on at this stage reveals ulceration to extent. It may be very superficial imited to one or two small points, or many focuses, some of which may be deep and involve the whole thick- of the mucous membrane, or even rate the bowel. When ulceration oc- above the peritoneal fold, it results ritonitis, and when below that line, ss and fistula. A chronic proctitis in this way, cause a stricture.

all forms of proctitis the anus is red painful, the sphincter and levator ani les irritable and spasmodic, and as- ted with the local symptoms there is ys more or less constitutional dis- nce. In chronic proctitis, the symp- are less marked, diarrhea alternates constipation, and the discharge oc- only with defecation. The inflamma- may be limited to only a small part e rectum, or may be more diffuse and ve all the organ.

e symptoms of dysenteric proctitis similar to the catarrhal chronic, ex- that more of the bowel is involved, the systemic influence more marked. n the diphtheric variety is found, the members of the patient's family ld be cautioned about using the same t. The gonorrheal form has its char- istic free, creamy, white discharge ng from the anus, the rectum becomes hot and swollen and the pain is burning and intermittent. The anus chafes and the sphincter is spasmodic. The proctitis is usually of short duration, and can easily be differentiated on account of the presence of the disease in the vulva, or urethra, and by finding the gonococci in the pus. It may, however, if untreated, degenerate into a chronic proctitis. The discharge is freer and contains more pus than any other form of proctitis. It must be remembered, though, that gonorrheal proctitis is rare. Gosselin saw only one case in three years at Louccine.

The following case in my own practice, some time ago, gives a vivid picture of this form of trouble:

Case 11.—Referred to me by Dr. G. W. W., and first seen by him; suffered from gonorrheal infection of the whole genital tract. Abscesses had developed in Bartholin's glands and, rupturing into the rectum, had produced labiorectal fistula on either side of the vagina, from which there was considerable discharge. The examination revealed sinuses into the rectum above the external sphincter. Examination showed, on inspection, a free discharge from the vagina, and, also, from the rectum, when the patient was requested to bear down; although the sphincter, which was spasmodically contracted, would ordinarily retain the discharge. The anus was quite inflamed. The digital examination showed that the rectum was tender and disclosed an abrupt stricture about two and one-half inches above the anus. This stricture was at nearly the lower level of the internal sphincter muscle, and was annular in shape and diaphragm in form, that is, a thin membranous septum. No marked induration was felt at any point, but as the finger was withdrawn it was covered with blood and pus and a few shreds of mucous membrane.

The observation through the speculum was especially instructive. The active inflammation began immediately above the external sphincter and appeared localized below the stricture spoken of. The whole mucous membrane had a honeycomb appearance, and was covered with white fibrous shreds resembling the "tripper fäden" of urethritis, only much lar-

ger. They were easily removed, but left the mucous membrane inflamed and bleeding. As the rectum was dilated, the stricture could be seen to stretch and tear. The trouble appeared to be localized within the lower two inches of the rectum.

Prognosis.—Proctitis is not very serious, as a rule, unless the cause can not be found and removed. When the cause is removed the case usually heals kindly, unless complicated by ulceration, abscess, or fistula. Sometimes a perirectal lymphangitis or phlebitis may protract the case or cause a fatal termination. Acute proctitis will pass off in ten days or so, leaving no appreciable, permanent alteration in the bowel, except in those cases where ulceration, or gangrene, has occurred. Chronic proctitis is liable to continue indefinitely, unless the cause can be removed. The mucous membrane is thickened and indurated, and loses its sensibility, more or less, so that a large bolus of feces may collect without stimulating the rectum to expulsion. Stricture of the rectum generally has some chronic proctitis associated with it; below the stricture the mucous membrane is congested and covered with pus or mucus, while above the stricture ulceration occurs.

A thorough examination of a case of proctitis is important, and a digital examination should be made in every patient presenting a chronic diarrhea, because many of the causes given above as predisposing to, or exciting proctitis, may be promptly determined. When the patient is placed in the knee-chest position, the proctoscope is well-oiled and introduced, and as the obturator is withdrawn the air rushes in and dilates the bowel, and by turning the proctoscope from one side to the other, and gradually withdrawing it, the whole surface of the rectum may be carefully and thoroughly explored.

Treatment.—The treatment of proctitis varies considerably with the exciting cause, and, therefore, before instituting any treatment a thorough examination must be made. The parts being irritated and inflamed, the examination is very painful unless an anesthetic, either general or local, is administered. In many instances, where, for various reasons, chloroform should not be given at th time of the examination, the patient ma be relieved of most, if not all, of the pai by applying a two per cent solution of co caine. A general anesthetic has much i its favor, because when the patient i asleep the sphincters may be thoroughl dilated, thus relieving the tenesmus an greatly facilitating subsequent examina tions or treatment. At the same time, an local trouble or cause of the proctitis ma be removed, thereby accomplishing tw things at one sitting.

Acute cases require absolute rest in bed because when the patient is up and abou his duties the dependent position of th vessels, together with the thinness o their walls and the associated congestio and inflammation, produce a venous sta sis which seriously impedes, or prevents regenerative changes.

The diet should be plain and of such variety as will insure soft, or semi-soli evacuations. It is also advisable to main tain a largely absorbable dietary that th bowels may move infrequently, thus spar ing local movements of the parts. Twic each day the bowel should be douche with two quarts of cleansing solution, a hot as can be borne. To begin with, temperature of 105° F. may be used, an the temperature raised each day. Plain boiled water, with the addition of a hand ful of salt, has given me the best result I have devised a douche tip of my ow to be used in these cases, because I hav found it impossible to obtain a free retur flow with any I have been able to find and unless the exit is large the fluid wi pass up into the colon and carry the in fection up with it, instead of washing i out. By practical experience I find tha douching in this manner washes out large amount of infectious material, suc as secretions, fecal accumulations an hordes of micro-organisms; dissolves mu cus and pus, flushing them out as shreds contracts the vascular structures, thereb stimulating circulation, and relieving th local congestion and depleting the tissue

Following the douche, about tw drachms of astringent antiseptics, o other medicinal mixtures, are injected, an the patient instructed to retain it. Silve nitrate, hydrastis, glycerole of tannin, o acetate of lead, in various combination

strengths, according to the case, are most reliable drugs. If the pain and mus are not relieved, laudanum and h water may be injected every two hree hours until the patient is re-d. From twenty to sixty minims are needed in this way.

t fomentations applied over the hypo-ium give much relief when the nmation extends over a large area, when there is general, diffuse pain enderness. In mild cases limited to ower end of the rectum, the applica- of cold to the anus and perineum, or njection of cold water into the rec- relieves the congestion promptly.

hen the proctitis is due to thread ns, injections of lime water, or salt r, and the administration of santonin nally, will be enough. Gonorrheal itis, like its counterpart in the ure- is especially intractible. Silver ni- solutions, one three-thousandths, d be used to douch the rectum, but ame conditions must be observed as mentioned above in speaking of the l douche. The strength is to be grad- increased as a tolerance is obtained a three one-thousandths solution is

Following the douche the whole us membrane is swabbed with bal- copaiba, or a suppository containing m copaiba and iodoform, each five s, may be inserted.

e chronic forms of proctitis are some- different. Barring the very mild it may be said that unless carefully ed they all become chronic. The ing should be instituted in these the same as in the acute cases, be- of its alterative effect. The exces- secretion is controlled with applica- of alum, zinc, or silver, or any of combined in a suppository with orm, or one minim of oil of turpen-

en ulceration, periproctitis, or any complication exists, it requires its treatment, which, for obvious rea- can not be entered into in this . Syphilitic cases are associated ly with strictures, which may re- surgical treatment, although I have astonishing changes occur under gen- internal medication. Tubercular itis is usually secondary to disease higher up, and is accompanied with so much ulceration, together with the general systemic infection, that treatment is unsatisfactory. The treatment of proctitis, due to cancer, is surgical, of course, and can not be considered in this paper.

Proctitis, in either the acute or chronic form, is always a serious matter, deserving of the physician's most careful attention, because the inflammation itself may debilitate, and especially because complications which may invalid the patient are prone to occur. Each case is a law unto itself, and this article can not go into the details that may perplex the attendant, but simply tries to give the reader a clear clinical picture in general, and to lay down the main lines of treatment.

599 East Forty-Sixth Street.

[Written for the MEDICAL BRIEF.]

The Medical Practitioner and Dental Diseases.

BY ORION W. BEDELL, M. D., D. M. D.,

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While the etiology and pathology of some dental diseases may not be clearly understood, the relation between them and some diseases coming under the observation of the practitioner of medicine is so clearly defined that it becomes important for him to have a good knowledge of such relation, in order to give his patients the best possible service.

The dental diseases thus associated with other troubles, either as causative factors, or, at least, intensifying them, may be classified under two general headings:

First. Those in which the disturbing factor is other than some definite infection.

Second. Those in which infection can readily be proven, and are usually accompanied by the formation of pus.

Under the first heading may be mentioned those disturbances of the pulps of teeth, which cause obscure, reflected pain of a neuralgic type, located by the patient in the ear, eye or temple region.

Under some forms of irritation it is found that the dental pulp undergoes de-

generative changes, resulting in the formation of calcific nodules within the mass of the pulp, and many of these formations, when they impinge upon the nerve tissue of the pulp, give rise to a distressing form of disturbance which is very hard to trace to its cause, especially as the teeth in which these nodules are located may be perfectly sound.

The patient may complain of severe pain about the side of the head, or it may even be located by them down the side of the neck, into the shoulder, or chest.

Pulps are also the seat of many vascular disturbances, which may set up a train of symptoms that are extremely hard to trace to the teeth; their greatest disturbances being reflected, or transferred, to parts at a distance from the site of the trouble.

Patients who habitually neglect the teeth, allowing carious conditions to remain uncared for, and calcareous deposits to collect in large and offensive amounts, may become the victims of digestive disturbances which, instead of being the cause of the unhealthy condition of the mouth, as is sometimes supposed to be the case, are really *produced* by the repeated partaking of food masticated improperly in this unhealthy oral cavity.

In the treatment of persistent neuralgias and digestive troubles that do not seem to yield to drugs, the physician should call to his aid the services of the dentist, whose training and appliances may be of great service towards the successful handling of the case.

Under the heading of infective troubles, there are diseases involving the pulp, the pericementum, and many tissues connected with the oral cavity.

Suppurative pulpitis, or pericementitis, causes some of the most severe suffering to which the human family is heir; especially is this true in connection with those cases where a considerable quantity of pus is formed about the roots of teeth, accompanied by swelling of the parts until the face is much disfigured.

In the hands of many physicians these cases seem to have been improperly handled, they having advised the patient to delay any operative procedures until the swelling had subsided.

These physicians would probably co sider it poor practice to allow any foreig body causative of suppuration to rema without heroic treatment. In a sens these teeth have become foreign bodie and are the source of irritation. If th teeth are not valuable enough to warra their treatment and filling, the indicati is to remove them as early as possibl as this affords the very best way for eva uation of the pus, and the use of indicat antiseptics. Many of these teeth, by ear and careful treatment, can be made usef for many years.

Suppurative conditions about the roo of upper teeth, posterior to the cuspid may result in the extension of infecti to the mucous membrane of the Antru of Highmore, with symptoms pointi only to persistent and foul catarrhal co ditions of the nasal fossa. Such cas should be carefully examined, especial when the catarrh presents the sympto of being unilateral, with an offensive d charge from one nostril. .

Suppurative conditions of the lower ja may result in the pus burrowing in th direction of least resistance and, aided b gravity until the abscess breaks on th side of the face or jaw, leaving a most u sightly scar that remains for life.

I believe it is a safe practice to nev place a poultice of any kind on the ou side of the face, in cases of dental absce but all poulticing and lancing shou be done from the inside of the mouth.

A case once came under the writer's n tice where the physician had poultice and lanced an abscess of this charact on the outside of the cheek, and had the maintained drainage from this fistulo opening by means of a silver wire, held place for eighteen months with adhesiv strips. The lady during this time suffe ing both bodily and mentally on accou of the condition. The tooth was extracte "which had been the original cause of th trouble," and almost perfect healing fo lowed within a few days. Of course, a unsightly scar remained.

The limitations of an article of th character preclude the possibility of pro erly setting forth all the diseases of de tal origin for which the practitioner medicine is called upon to prescribe. F the dentist to attempt the treatment

s of pneumonia, or diabetes, would oubtedly be a great mistake; so, also, he medical practitioner to attempt to all cases having a possible dental n without asking the co-operation of lental brethren, may result in his not ding the very best service possible.

Lafayette Avenue.

[Written for the MEDICAL BRIEF.]

ronic Hypersthenic Gastritis.

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ronic hypersthenic gastritis, often d acid catarrh of the stomach, is a se which, because of its prevalence the suffering it produces, is well wor- of consideration.

thology.—In its pathology, according an Valzah and Nisbet, the predom- ng changes are as follows: prolifer- of the border and chief cells of the ic glands; a variable infiltration and feration of the connective tissue, h in late stages of the disease may fere with the blood supply of the ds, thereby diminishing their num- ; and thickening of the mucous mem- e, which is covered with mucus, and times stained with blood.

iology.—Among the most important ors in the production of this of gastritis are indulgence in ol and tobacco, the excessive use of iments, the swallowing of coarse, operly masticated food and irregular excessive eating. It may follow tional disturbances of the stomach in h there is supersecretion. Long inued mental worry may readily be ctor in its production.

mptoms.—The symptoms vary in a derful degree. In some cases the se is undoubtedly present for months out giving much, if any, discomfort, here may be evidence only of bowel gestion or general nervousness, or the ptoms may be so severe as to make patient's life seem scarcely worth g. The most frequent symptoms are taste, regurgitation of sour food, rtburn, oppression in the chest, full- ness, weight, distress, nausea, headache, dullness, drowsiness and vertigo, usually coming on from one-half to two hours after the meal, lasting for a variable period, ordinarily decreasing in proportion as the stomach empties itself. The appetite is usually good, and it is frequently abnormally large, the patient desiring to eat heartily, but fearing to do so. These symptoms may only follow some unusual liberty in eating. Frequently they come after each meal and cause so much annoyance as to wear decidedly on the patient's nervous energy, and render him unfit for his duties.

This trouble is found in one of three stages. In the first stage, in which the stomach is able to empty itself in the normal time, the symptoms commonly do not last more than an hour or two. In the second, in which gastric digestion is prolonged, there is a corresponding prolongation in the symptoms frequently lasting from the onset until the next meal, unless some remedy is taken for its relief. Because of the prolongation of digestion in these cases fermentation with gas formation is apt to be present in a marked degree. In the third stage, in which the gastritis has progressed to such a point that its cure can not be hoped for, the symptoms vary, depending upon the degree to which the mucous membrane has been destroyed by the ravages of the uncontrolled disease. Ordinarily the distressing symptoms are diminished or relieved by the taking of food or some alkali.

Although the manifestations of this disease are more characteristic than those of many gastric troubles, yet a satisfactory diagnosis is commonly impossible without a study of the functional signs. Chiefly by means of the functional signs Van Valzah and Nisbet distinguish the three periods of evolution of the gastritis. In the first stage the quantity of secretion and the duration of gastric digestion are normal. Supersecretion and prolonged digestion characterize the second period. And during the third or terminal period the quantity of gastric mucus is diminished and the duration of gastric digestion is shorter than in health. In order to determine the condition of the stomach the employment of the Ewald-Boas test

breakfast, consisting of a French bread roll and one and a half glasses of water (seventy grams of bread and three hundred and fifty cubic centimeters of water) is practically the most convenient and exact method. One hour after this has been eaten the contents are withdrawn and analyzed. The bread is found to be in a fine state of subdivision, the odor is normal; mucus is found to be present in excessive quantity. The free hydrochloric acid is more than twenty and may run up to seventy or eighty (Toepfer's method.) The total acidity is more than sixty and may reach one hundred and ten or one hundred and twenty. The ferments are abundant. The salivary digestion is deficient. The microscopical findings are ordinarily uninteresting, unless there is found a portion of the mucosa, in which case evidence of gastritis, with proliferation of the glands, may be found. A trace of blood (chemical tests) is often present in the contents. The physical signs are not characteristic. Sometimes there is general gastric tenderness. Frequently there is evidence of excessive gas in the stomach and bowels.

Prognosis.—The prognosis in the earlier stages of the disease is good, provided the patient will obey orders. This affection is one which tends to become more serious, and unless the patient is willing to faithfully follow instructions it is useless to undertake his cure.

Treatment.—With present methods of treatment a complete cure can not be expected in less than two or three years. It is well to tell the patient that the disease will get worse and that the possibility of ulcer of the stomach is not remote in case he continues to neglect himself. It is most important that the causes of the trouble should be removed. The "cocktail" and "highball" must give way to pure water. Strong coffee and tea must be eschewed. All drinks which are too hot or ice cold are to be avoided.

It is scarcely possible to over-emphasize the need of keeping the nervous system continuously in a reposeful state. Whenever feasible the overwrought broker or the nervously exhausted prize-winning student should be induced to be less strenuous and to learn to work with less nerve-racking friction. If one of these patients can be sent off for a short vacation in th country the symptoms often disappear marked degree, only to return when h resumes his customary duties. In so fa as practicable we should insist upon li in the open air. The patient should tak his meals at regular intervals, five hou apart. He should endeavor to be reste when he eats and allow a half hour elapse after eating before resuming h usual occupation. He should, when po sible, exercise systematically in the ope air, but should never fatigue himself such a degree as not to feel rested afte lying down for fifteen or twenty minute He should sleep eight or nine hours ever night. He should partake freely of wate an hour or two before meal-time, and n take more than one glass with each mea being careful always to drink when th mouth is empty.

It is essential that all irritants, wheth in food or in drink, be removed from th dietary. Mustard, pepper, Worcestershi sauce, ginger, strong acids, and seed fruits or vegetables, such as strawberri and tomatoes, must be wholly forbidden

The cardinal indication is sedatio The food should be bland and nourishin Ordinarily a small amount of beef, mu ton or lamb, roasted or broiled, may b allowed once a day. At other mea chicken, turkey, partridge, quail, swe breads, calf brains, fish with tender whi fibre and not rich in oil, soft cooked eg and raw oysters may be eaten. Fat ten to reduce the acidity and it can ordinari be given to best advantage in the form butter and cream. Remembering that th rich acid is apt to prematurely arrest th action of the saliva, thorough masticatio of all starchy foods should be insiste upon. To accomplish this the breadstuf should be made up of the crust of wel baked French bread or rolls, pulled brea zwieback, or stale bread. Of the cereals ric cooked one and one-half hours, the fin preparations of wheat and hominy cook four to six hours, until thoroughly we done, are most desirable. Potatoes, eaten should be twice cooked, mashe and then baked. The vegetables co monly best borne are purée of spinac tender string beans, tender young pea stewed celery, summer squash, Hubba squash and young carrots. Of the frui

well to allow only the juice of an ge, the inside of three or four stewed es, the inside of a well-baked apple, h should not be tart, a ripe peach, or e Bartlett or Seckel pear.

cases where there is but little fer- tation and gas in the stomach or ls, there is no objection to the simple ts, such as vanilla ice cream, which ld always be eaten very slowly; rice ing, tapioca pudding, custard, sponge , etc.

e best drink is water. In suitable cocoa, cereal coffee and milk are to llowed.

the use of medicines it is important to t the supersecretion and to neutralize excess of acid when present. One- th to one-twenty-fifth of a grain of extract of belladonna, or one or two ms of the tincture with each meal, often of value. Some form of alkali een meals is usually desirable. For nple:

Bismuthi subnitratis.....2 drachms.
Sodii bicarb.....2 drachms.
Magnesiæ carb. levis.....2 drachms.
et. div. in chart No. XXIV. Sig.: One pow- with a drink of water two hours after each Repeat dose if necessary.

Bismuthi subcarb.....1 drachm.
Sodii bicarb.....2 drachms.
Magnesiæ carb. levis.....2 drachms.
et. div. in chart No. XX. Sig.: One or two a drink of water from one to three hours each meal.

rium oxalate, two to four grains, may dded to each powder if nausea is pres-

casionally one grain of chloral hy- e, in a drachm of chloroform water, n with each meal, is useful. Ichthyol, e to five minims, with an equal unt of olive oil in elastic capsule, may iven two or three times daily with fit; or, the following prescription be used:

Ichthyol.....1 drachm.
Carbonis ligni } a. a..... q. s.
Pulv. altheæ }
et. div. caps. gelat. No. XX. Sig.: One a drink of water at eleven, five and bedtime.

ccasionally one-fourth of a grain of ate of silver in a half ounce of water, n undiluted on awakening, for a week en days, proves of great assistance.

here the digestion is much prolonged he mucus is in marked excess, lavage he stomach may be desirable. Plain water, one per cent solution of ichthyol, or one in two thousand solution of nitrate of silver may be employed. The latter may be left in the stomach for one or two minutes, after which it should be washed out with plain water. Where the nervous element is an important factor it is desirable to give for a time strontium bromide five to twenty grains daily.

In controlling the constipation remedies should be employed which do not stimulate the gastric secretion.

Briefly summarized the essentials of treatment are:

1. Removing all irritants from the bill of fare.
2. Securing, continually, repose for the nervous system.
3. Employing lavage when indicated.
4. Using sedative medication.

10 East Forty-third Street.

[Written for the MEDICAL BRIEF.]

Stricture of the Urethra.

BY LOUIS GROSS, M. D.,
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Although there is no particular method of treatment suitable to all cases of stricture of the urethra, yet the different and numerous procedures are not opposed to each other; each has indications and a useful sphere of its own; yet, in my experience, I find dilatation, either interrupted or continuous, the method of choice, and one that should not be abandoned until we find it unsuited to the individual case. In many chronic cases, some of which have had an external urethrotomy previously performed, have I been able, by combining continuous with interrupted dilatation, to enlarge and maintain the caliber of the urethra. Another advantage of this method is that it does not interfere with operative procedures, should the case subsequently demand it. I would never advise the performance of an external urethrotomy without a guide, unless absolutely compelled to do so, much preferring to wait until a filiform can be passed through the narrow opening.

In this treatise I shall deal particularly with strictures of very small caliber—ones almost impermeable. Undoubtedly there are many of these cases where physicians have made unsuccessful attempts in passing the instrument and have complicated the case with numerous false passages, but if one possesses ordinary skill and the necessary patience, there are very few strictures which will not permit the introduction of an instrument.

Case 1.—One particular case in my clientele is that of an Englishman who had a gonorrhea many years ago, and through the use of some caustic remedy his stricture originated. While in Hong Kong, about two years ago, he consulted his physician, who made futile attempts in passing the stricture, after which he informed the patient his urethra was normal, and the best plan was to discontinue treatment altogether. He consulted me about a year ago with the following symptoms: Slight, gleety discharge, stream of urine small, and the act of micturition consuming considerable time and demanding much straining. With some difficulty I was able to introduce a tapering bulbous bougie, No. 5, French scale, and by gradual dilatation was eventually able to pass a No. 28. The discharge disappeared entirely and the stream is quite free.

The next two cases illustrate how much can be accomplished by dilatation in extremely tight strictures, recurring many years after an external urethrotomy.

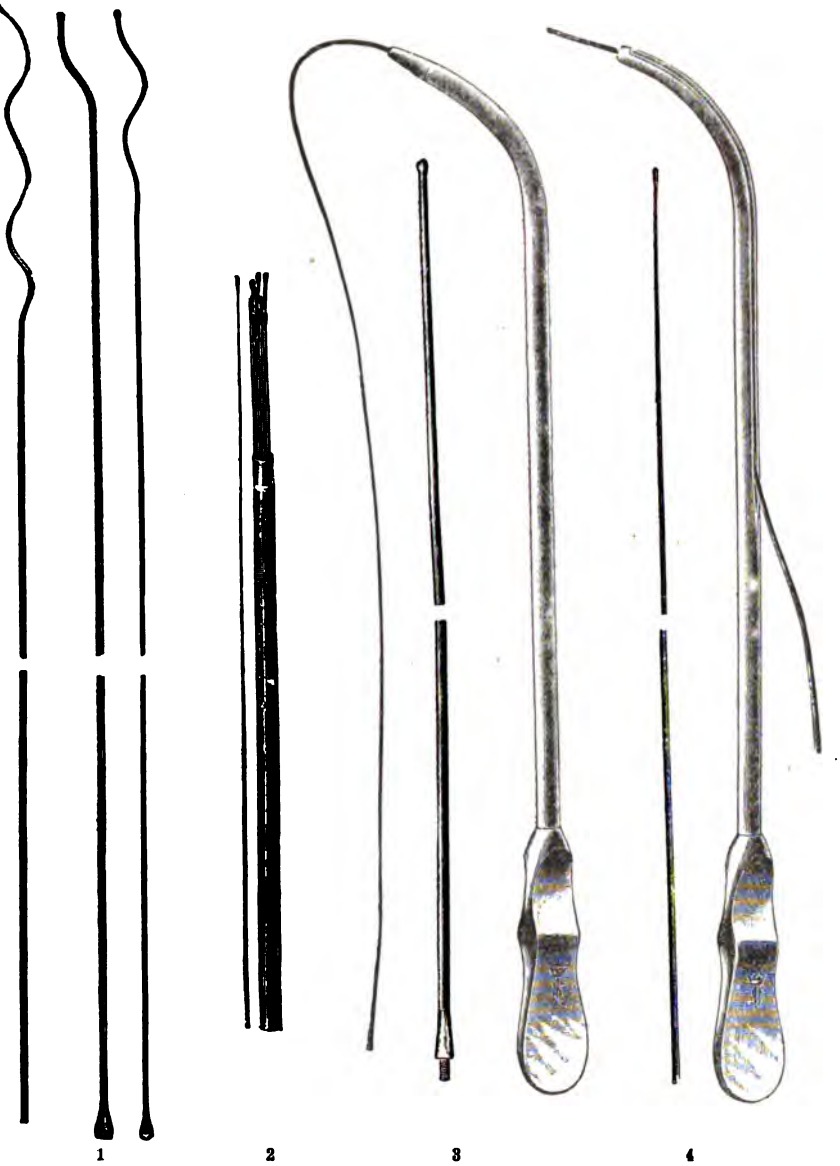
Case 2.—L. C., age forty, laborer, recommended by Dr. H. D'Arcy Power, November, 1902. Eleven years ago suffered from attack of gonorrhea, and a year or two afterward noticed that the stream of urine was becoming smaller and smaller, until one day (six years ago) had complete retention. Operated upon by external urethrotomy, which relieved him for a few years, when the same lessening in the size of the stream was again noticed. Having had an exernal urethrotomy performed, I decided upon continuous dilatation, after having passed a filiform. The instrument used was a Le Fort sound, which was screwed to the filiform. The stricture dilated rapidly, and at the end of a week and a half the patient was around. I was able to gradually increase the size by interrupted dilatation. The last sound passed was a No. 28, Frenc scale. The patient left the city and r turned in February, 1904, when his ur thra readily passed a No. 23, which wa increased to a No. 28.

Case 3.—A. L., widower, forty years seen at the City and County Hospital i September, 1904. Had gonorrhea abou fifteen years ago, which became chroni and was treated for many years. Abou six or seven years ago had complete r tention of urine, after relief of which h was operated upon by external urethro omy. He was instructed by the a tending physician to pass sounds at state intervals, but neglected this advice alt gether. Upon examination, found that h was passing urine in drops only. I a temped to pass a tapering bougie, bu without success. I then had recourse t the filiform, and after failing to pas same, patient was instructed to hold th filiform tightly against the strictur After a rest of about an hour, one passe through, which was tied in. Next day Gouley's tunnelled sound was passed ove the filiform, when Nos. 10, .12 and 1 sounds (French scale) passed throug At the present writing the patient's stri ture admits a No. 26 sound (Frenc scale) without difficulty, but some car must be exercised on account of a fals passage on the right side of the bulbou urethra. This can be avoided by passin the sound from the left side, that th beak of the instrument may avoid it. Pa tient had no instrumentation from No vember 8, 1904, until May 18, 1905, whe No. 18 sound passed stricture. Only r maining five days in the city I quickly d lated it to No. 28, French scale.

Case 4.—Dr. W. J., physician, thirty seven, married, first gonorrhea ninetee years ago, four subsequent gonorrheal in fections in the following seven years. I 1891 noticed a gradual diminution in th size of his urinary stream, considerabl straining, frequent attacks of cystiti tenesmus. Complete retention of urin for twenty-four hours, which was relieve by a full hot bath; four subsequent a tacks of retention within the followin two months. During the year 1894 an ex ternal urethrotomy was performed. Afte the operation the urethra admitted a No 30 sound (French scale), which size wa

nued weekly for a period of six hs, after which time they were ed monthly. At the end of the month e would be a recontraction to No. 22,

In our treatment of these tight strictures we should always begin with as large a tapering bougie as the stricture will admit, gradually reducing the size



No. 1. Whalebone filiforms, spiral ends.
No. 2. Whalebone bougies, straight.
No. 3. LeFort's sound, with filiform attached.
No. 4. Gouley's tunneled sound.

n would be eventually dilated up to 30. Sounds were passed regularly month until four months ago. At writing I was able to pass a No. 14 ing bougie.

should we fail to pass it. As the urethra is usually complicated by the presence of false passages, it is simpler to pass a bougie than a filiform. Should the smaller bougies not pass, then our only recourse

is to the filiforms. To facilitate the introduction of a filiform it is well to distend the urethral canal by injecting warm oil, holding the meatus tightly and passing the filiforms into the distended urethra. Undoubtedly the oil passes through the narrow opening of the stricture and enlarges and lubricates its lumen, facilitating the passing of the instrument. Introduce the filiform and with a rotary movement push it forward. This may engage in the orifice of the stricture. If not, introduce another, and so on until the urethra is filled with filiforms, trying one after another until one passes through. Should this plan not be successful, then rest the patient and instruct him to hold them tightly against the stricture, and within one or two hours we may follow the same manipulations as outlined above, which procedure is nearly always successful. The urethroscope has proved of little benefit in my hands, as the obturator prevents the tube from getting in close contact with the face of the stricture.

The instruments used are those of Le Fort and Gouley. The Le Fort instrument consists of a filiform bougie, to which a screw is attached, and after the filiform is passed, the sound, which contains a female screw, is attached to the end of the filiform and passed through the urethra into the bladder, the filiform curling up in the bladder. This sound can be removed and a sound of larger caliber can then be passed. With Gouley's instrument, the ordinary whalebone bougies are passed through the stricture, after which the tunnelled sound is passed over the filiform. In order to avoid losing the filiform in the urethra, I usually grasp the outer end with a pair of hemostatic forceps after Gouley's instrument is attached.

The question arises: Why should we subject an individual to an external urethrotomy, when there is so much danger of a recurrence, should the patient become negligent in his after-treatment? Does not continuous and gradual dilatation fulfil the same conditions? True enough, these tight strictures must be treated as long as the individual lives, yet do not the above cases demonstrate the fact that the same after-treatment must be continued after an external urethrotomy, or th will likewise recur.

In conclusion:

1. Dilatation is the preferable meth if the strictures will yield to this measu
2. There are very few strictures whi will not yield to dilatation.
3. After the performance of an ext nal urethrotomy, dilatation should alwa be insisted upon.
4. Dilatation is a successful meth in many cases, should the stricture rec after an external urethrotomy.
5. In very tight strictures, instead an external urethrotomy, a filiform shou be introduced, and the stricture dilat by continuous and then, later, interrupt dilatation.

369 Sutter Street.

[Written for the MEDICAL BRIEF.]

"Remedies for Specific Conditions

BY PITTS EDWIN HOWES, M. D.,
Associate Editor "Eclectic Review,"
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Close investigation by critical obse ers have, in the past fifty years, elicit facts—which can be applied to the tre ment of disease—that were not dream of by our predecessors in the healing a

The search for specifics, that wou cure the various classified diseases whi are said to afflict mankind, has been d gently pursued by eager enthusiasts f many ages without success.

The trouble has been that the searc ers have been attempting too much. Th failed to realize that the departure fr normal health—which is termed disea —is of an exceeding complex charact That a great variety of causes may son times enter into a given disturban That what would relieve one attack pneumonia may be worse than useless another attack, even in the same pers That the various disturbances incident human life may be resolved into seve conditions, of which some are of mo importance than others.

When medical men began to gra these facts and investigate along the lines they learned that while specifi for diseases, as they are generally nam —such as pneumonia, bronchitis, chol

tum, dysentery, phthisis, etc., etc.—
ot to be found, yet the various con-
is which go to make up these ills—
ich human flesh is heir—can be spe-
lly treated, and treated with marked
ss.

rthermore, it was discovered that
the condition was determined in
any given remedy would produce
, it did not matter whether the pa-
was suffering from one disease or
er, the same effect was obtained.

m that time a rational system of
ine began to be evolved, and the
-rate commenced to decrease. The
cian who adopts this line of treat-
must become a skillful observer.
patient must be examined and
ed individually, if success is to be
ed.

m time immemorial the tongue has
a large factor in determining the
ment to be adopted. Yet it re-
ed for recent years to demonstrate
hat an extent this member of the
n body could be accepted as a guide
e successful restoration of normal
h.

ose who are constantly observing
ongue will easily notice two striking
itions. One where the tongue is of
p red color, and inclined to be nar-
and pointed. The other where it is
l and flabby, and covered with a
, whitish coating. The first of these
ate that the fluids of the body are
sely alkaline, and an acid is needed
store the equilibrium. When such
ndition is manifest the administra-
of lemonade, or a weak solution of
ochloric acid, as a beverage, will pro-
marked results. The other condi-
indicates just the opposite—that the
s are intensely acid, and a soda salt
eeded to restore the balance. Here
ddition of bicarbonate of soda to the
k will produce a happy effect. If,
ever, you should give an acid drink
e latter condition, or an alkaline one
he first, all the symptoms of the
dy from which your patient is suf-
ng, would be intensified.

any times the condition of the stom-
is such that your remedies are not
rbed, and thus fail to produce the
l which they otherwise would. Even
food is not properly digested and passes into the small intestine in such shape that putrefaction ensues, gas is generated and much pain and discomfort is produced.

Examination reveals a full, broad tongue, covered with a thick, dirty, white coating, which increases in thickness from before backward. Inquiry will reveal that there is a bad taste, especially in the morning. Also, that this bad taste is lessened to some extent by partaking of food. There is one remedy—and I believe *only one*—which will remove this condition, and that is sulphite of soda, given in doses of five to ten grains, from one to three times a day.

It is surprising to see how the tongue will clean under its use, and the general conditions of the patient improve.

If there is any one remedy which will prove the theory that there are specific remedies for specific conditions, sulphite of soda is that remedy. And the sign for its use is so simple that the most obtuse, in reading signs for remedies can not fail to see it.

The administering of this drug a few times, where it is indicated, will do much to convert any practitioner to the theory that there are remedies for specific conditions. As he watches his patients for this indication he will be surprised to see in what a variety of diseases it manifests itself. His surprise will fade into astonishment and joy as the administration of the drug works equally well in them all.

Children form a large part of the practice of many physicians. Those who come in contact with them to the greatest extent know that the large majority are extremely restless whenever they are attacked with any disease.

Combined with this peevishness you will almost invariably find that the cheeks are flushed, the eyes bright, and the entire body exhibits a picture of irritation.

When these conditions are plainly indicated, add ten drops of tincture of gelsemium—*made from the green root*—to four ounces of water, and give teaspoonful doses every hour. The effect is magical.

Just a word about the gelsemium. It is absolutely essential that the tincture

be made from the green root, otherwise it is useless. Many times a physician uses a preparation and does not get the effect which he has been led to expect, and thus condemns the drug. The fact is that he has not used the correct preparation of the plant, and the fault should be placed upon the maker, and not the remedy.

[Written for the MEDICAL BRIEF.]

Diabetes and Its Surgical Treatment.

BY ARTHUR C. BELL, A. M., M. D.,

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The name diabetes had its origin in a Greek verb, which means "to go through," to go through the kidneys. The word mellitus means honey. Diabetes mellitus means honey in the urine, sugar in the urine. Such urine smells sweet, and it is sweet to the taste. Sugar is then present in the blood and the other fluids of the animal economy. It escapes in the urine and may be detected by the Haines' test for sugar in the urine. No man, however grand and good, has ever fathomed the mysteries of this great disease. None can tell us its exact nature. No man has exactly explained its cause. Some great medical minds will direct us to the liver and tell us it is glycogenic perversion.

Others will point to the floor of the fourth ventricles, brain tumors, etc., in vain. Others tell us the pancreas is involved in fifty per cent of all cases. Some say it is a disturbance of metabolism, and how true this is.

The latest thought seems to indicate that the pancreas and the islands of Langerhans are involved in inflammation or, perhaps, degeneration.

It seems we can not yet agree upon any certain cause as to its etiology. It is certain we can find no pathological lesions characteristic of diabetes. We define it as a constitutional disease, a perverted nutrition, with a marked symptom, known as sugar in the urine. There are some curious facts to confront us in this ease.

1. The first curious fact is that urine, or other fluids, of a diabetic produce diabetes, glycosuria, if introdu into another patient or animal. This been proved by actual test many times

2. The second curious fact is that pancreas is changed by pathological sions in fifty per cent of all cases.

Going back to the first curious please note these points: Injection of urine of a diabetic patient into dogs produce glycosuria, diabetes even after sugar has been removed. Then you inject the contents of the intestine diabetic into the intestines of a dog you produce glycosuria in the dog. Ag introduce the contents of the intes under the skin of a rabbit and you duce glycosuria in the rabbit; just producing syphilis by injecting syphi virus.

I point out these facts to teach you diabetes is, in all probability, an in tious disease, and that it should be ta out of its present classification as a stitutional disease and be rated as an fectious disease, as syphilis, typhoid ver, measles, or scarlet fever.

This is a new thought, but I hope will ponder it well.

THE CLINICAL PICTURE.

Diabetes Mellitus.—The quantity urine is enormous, twenty to thirty pi The specific gravity is high, 1025 to 1 Sugar is abundant. The disease is tended with abnormal thirst and v cious appetite. There is feebleness of muscular system and progressive ema tion. It is usually chronic and fa Such is the clinical picture of diab mellitus.

Diabetes Insipidus.—Insipidus is Latin word for insipid; insipid u tasteless, not sweet, having no sugar. this case there is also enormous qua ties of urine passed, polyuria. It is watery and tasteless. But in this dis the urine is of low specific gravity, to 1005, and it contains no sugar. also attended with increased appetite abnormal thirst. Patients who have form of diabetes may realize no ser inconvenience, except the increased

of urine. They may live with the ase for forty years, and die with some rcurrent malady. However, it may lt in progressive wasting and prove l. Thus you have a clinical picture iabetes insipidus.

iabetes is more common in men than omen, and in the over-nourished than poor. It is not a disease of the kid-, because there are no certain patho-al lesions of the kidney. It is to be rded as a perversion of nutrition, d on a pathological pancreas, revealed bnormal metabolism of the carbohy-e foods. The only constant symptom he kidney is the abnormal flow of e. There may or may not be a diffuse ritis.

e Pancreas in Diabetes.—Total extir-on of the pancreas by a surgical oper-n is followed by diabetes in all cases in a few hours. The volume of urine mes enormous. Sugar appears in the e. Progressive wasting becomes es-ished. Thirst and appetite voracious, the disease proves fatal in about fif- days.

fter extirpation you may graft the creas back under the skin at any point if the graft proves successful your etes will speedily be cured. The urine be reduced in quantity, sugar disap-s, thirst and appetite return to nor-, wasting is checked, and recovery is plete.

emove ninety per cent of the pancreas ving ten per cent *in situ*) and you have no sugar in the urine, excepting n you eat the carbohydrate foods.

emove all of the pancreas and graft k ten per cent of it under the skin again you will have no sugar except ou take the carbohydrate foods.

wo striking thoughts present them-es to view:

a) That the pancreas has an office to form, an internal secretion, which pre-ts all mankind from having diabetes. at a sublime protection from the Ar-tect of the Skies!

b) The author suggests a surgical nsplantation of the pancreas of some nestic animal under the skin of the betic patient as a radical cure of dia-es. (See treatment.)

Foods enter largely into the management of the case. No carbohydrate food should be allowed. It is well to observe that the pancreas has a double function, an external secretion, a digestive ferment which enters the bowel through the canal of Wirsung; and an internal secretion, which is absorbed into the blood, and by some chemical action prevents the appearance of diabetes in the whole race. The authorities are agreed that atrophy of the pancreas is present in fifty per cent of all cases of diabetes. Atrophy of the pancreas destroys its function, the same as though it were removed, and diabetes must intervene. Inflammation of the pancreas, or tumors therein, will destroy its function and diabetes will appear. Microscopical changes in the cells of the pancreas may destroy its function, whereupon diabetes will appear. I believe that in no distant day the medical profession will recognize diabetes as a pancreatic disease, and that it will be recognized as an infectious disease and not a constitutional disease.

DIFFERENTIAL DIAGNOSIS.

DIABETES MELLITUS.	DIABETES INSIPIDUS
1. Begins from chill or injury.	1. Gradual injury or emotion.
2. Abnormal thirst and appetite.	2. Abnormal thirst, good appetite.
3. Urine pale, 5 to 30 pints.	3. Urine pale, 20 to 40 pints.
4. Specific gravity, 1025 to 1045.	4. 1001 to 1005.
5. Sugar, 5 to 10 per cent.	5. No sugar.
6. May be albumin and tube casts.	6. Rare.
7. Impotency.	7. May not.
8. Occurs at all ages.	8. Young most common.
9. Prognosis bad under 40.	9. Not often fatal.
10. May last 15 years.	10. May live 40 years.
11. Progressive emaciation.	11. Well nourished, may be.
12. Tongue dry, red and glazed.	12. Negative.
13. Saliva scanty.	13. Reduced.
14. Death usually in coma.	14. Usually other disease.

A low specific gravity and the absence of sugar are the striking features which distinguish diabetes insipidus from diabetes mellitus, but will remind you of chronic interstitial nephritis.

Treatment.—You should remember that the blood and other fluids of a diabetic are

saturated with sugar. It appears, therefore, in the urine as a waste product. The intelligent physician will, therefore, forbid the use of all sugars. Starches and other carbohydrates are readily converted into sugar and should, therefore, be forbidden. The carbohydrates are as follows: Sugars, syrups, candies, starches (potatoes, bread, etc.), fats, fat meats, vegetables and fruits. All these should be interdicted, because they are either sugar or readily converted into sugar. Bread and potatoes are examples of starchy carbohydrates. Wheat is composed of starch and gluten, a carbohydrate, and a proteid. The proteid is good, but the carbohydrate not. All carbohydrates must be avoided, as far as possible, but you must not starve your patient. Feed your patients on the proteid. The proteids are all lean meats, eggs, milk, cheese and gluten.

Medicinal treatment is not satisfactory. Opium or codeine are sedative to the glycogenic function. They will, therefore, frequently be of service. Strychnia and ergot are vasomotor tonics and may be indicated. Assafetida may be administered for the sinking sensations at the epigastrium. Diabetic coma is usually fatal. It rarely responds to treatment. The fluid extract of jambul is anti-diabetic and frequently reduces the sugar.

I usually advise students to feed their patients on pancreases obtained from the butcher, with the hope of supplying the pancreatic deficiency in the system.

The pancreatic extract may be administered to supply the same deficiency. However, this is not highly regarded by many physicians.

Original Surgical Treatment.—In the *Dallas Medical Journal* for July, the author said the following:

"I now come to my original surgical treatment. It consists in grafting under the skin of the diabetic patient a part of the pancreas of the ox, or other domestic animal. The animal should be instantly killed, and the patient properly prepared. The operation should be quickly and cleanly done. The pancreas should be transplanted subcutaneously, while still at the body temperature."

This pancreas, if the graft proves successful, will perform the function of the pancreas which has become diseased, a which, therefore, allows the patient have diabetes. Once the internal sec tion of this newly-grafted pancreas tak place, the diabetes is cured.

I quote again from my lecture:

"This treatment is based on the phys logical fact that total extirpation of t pancreas by the knife is followed in cases by diabetes; but afterwards, if t pancreas can be grafted successfully u der the skin, the disease disappears, a the patient is cured. I believe that t office of the pancreas, through its intern secretion, is to prevent all mankind fro having diabetes. If the pancreatic functi is destroyed, either by removal or by d ease, we may transplant the pancreas some animal to supply the internal sec tion. The studies of grafting the pa creas will justify my original and logic treatment."

There is another observation I wish make. It is a treatment directed towa overcoming the acidity of the blood. T blood of the diabetic patient is render too acid by the presence of diacetic ac and acetones. This acidity is called ace osis. The blood should normally be alk line, so that it can receive oxygen, a take up carbon dioxide from the tissu

This blood being too acid, as explain above, it can not take up the carbon di ide out of the tissues, therefore, he s fers from auto-poison.

Carbon dioxide has an affinity for t hemoglobin of the red blood corpusc in an alkaline blood only. Therefore, t acidity of the blood causes an interf ence of the physiological action of t blood. This acidity may, also, interf with the perfect oxidation of the blood the lungs. All these factors put your tient further and further down the sca

To correct this acidity I will suggest you to inject normal saline solution un the skin, with a large percentage of dium bicarbonate. This will render t blood alkaline, and permit the physiolo cal activities to proceed normally.

After reading several copies of t MEDICAL BRIEF carefully, I have been c vinced that I must have it.—E. D. Be M. D., Hardy, Neb.

[Written for the MEDICAL BRIEF.]

Notes On Nephritis

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ht's disease is well defined by its matology. There are two char- tic symptoms—edema and al- uria, which are constantly found is disease of the kidneys. Though, nally, one or the other, or even ay be absent. When such is the e have to make our diagnosis from amnesis, general symptoms and s of the heart and vessels. We o differentiate between various the acute, the subacute and chronic besides, we have the amyloid de- tion of the kidneys, contracted kid- ed, granular kidney); and the con- kidney may be mentioned, as it the symptoms which characterize ease, though it is not a form of s disease.

urine contains, besides albumin, ment, which enables us in most make a differential diagnosis. The variety, as a rule, often accom- the infectious diseases, or follows wake, although a chilling of the , as a wetting, for instance, may it. This form is curable when y treated, and unless treatment is ed, and sometimes in spite of it, it ss into the chronic form. The pa- pale, anemic, the face is swollen find general anasarca. The urine entrated, dense, a large amount of n is present, epithelia cells and The general symptoms are those evere intoxication; headache, indi- , pains, etc. When this variety into the chronic form, it shows otomatology less pronounced. Usu- find a large quantity of albumen; bbules are always a symptom of hymatous degeneration.

e chronic form can be converted into erstitial form it may persist for years, but unless it can be so changed s to death in a year or two. It is fice of the physician to convert a c nephritis into the interstitial form. The large, white, sclerotic kidney is occasionally converted into the red granular kidney.

Often we find Bright's disease to start as a chronic disease. The amyloid degeneration of the kidney is due to pus in some part of the body, to old lues, malaria, to tuberculosis, and gives us a similar picture as the chronic variety, and with the amyloid degeneration of the liver, of the spleen, glands of the stomach and intestines, the etiology enables us to make a differential diagnosis. Although I live in a malarial country, I have never seen this form of kidney disease follow malaria. The red granular kidney, cirrhotic kidney and interstitial nephritis, kidney of gout, arterio-sclerosis, lead intoxication, malaria and lues, call our attention at once to the complications of this form of Bright's disease. One or the other of these may become the most prominent feature of the disease and may demand urgent relief. Endarteritis is never absent, and remembering that in every instance the primary cause of the disease is a toxic substance in the blood, we can well understand that such a relationship should exist. When its existence is established in the arterial system, the heart is bound to answer with hypertrophy to overcome peripheral resistance, and we find the tense pulse and the hypertrophied heart beating against the chest wall. Degeneration of the muscular tissue progresses and dilatation follows, marked by pronounced cyanosis, dyspnea, edema of the feet and ankles, and congestion of all the viscera. Murmurs are now heard over every valve, and the patient presents a picture of advanced heart disease. Endarteritis accompanies this disease in practically every case. Cerebral hemorrhages are frequent, due to rupture of milliary aneurysms. Liver cirrhosis is a common complication, and usually with the vast majority of cases we have to consider a chronic inflammation and fibrous tissue growth in every organ of the body. It is characteristic that in the majority of cases these chronic inflammatory changes may have seriously crippled the functional activity of every organ without interfering with the long life of the patient.

The patient feels well for months or even years, gradually or suddenly symptoms appear. As long as the kidneys do their work he will not be aware of any serious trouble. Failure of the kidneys to eliminate toxins finally causes those symptoms to appear with which every practitioner is familiar, headache, neuralgia, muscular pain, etc. Retinitis is often one of the first serious symptoms sometimes discovered by the oculist. Fainting spells are not rare, frequently indicating that the heart is unable to overcome the obstruction existing in the circulation. This may go on for many years, until a more careful examination discloses the real trouble.

If the disease is recognized in the early stages the trouble may be brought to a stop, but it will be well to understand that that portion of the functioning tissue destroyed, can not be remade.

The treatment must vary according to the form and the stage of the disease. As there is a similarity between the symptoms of all forms of this disease, so the treatment is similar. The acute form is best treated by absolute rest in bed and a milk diet. The milk is best skimmed, and a glassful taken every three or four hours day and night. More if desired. The milk is to be sipped or eaten with a spoon. Every portion of it must be well mixed with saliva. After the albumen has disappeared, fruit juice may be added to the diet, as well as fresh or dried fruits, and after the albumen has disappeared for months a more generous diet may be permitted.

In amyloid degeneration we must, of course, treat the cause of the disease. The interstitial variety is treated according to the various causes. Certain rules have to be observed in every instance, as, careful selection of clothing for protection against cold, to which all nephritic patients are subject; a non-stimulating diet, low blood pressure, and avoidance of irritation of the urinary apparatus; that is, to exclude from the diet all condiments, stimulating beverages, such as coffee and strong tea and alcoholics. An out-door life and exercise well proportioned with rest, especially rest before and after eating, and a change of climate is often found beneficial, the climate to be selected according to the idiosyncrasies of the patient.

In the more advanced cases the symptoms must be treated. The tense pu and the hypertrophied heart call for lief; the nitrates, nitro-glycerin, the dides and aconite are most relia remedies for this purpose. The dr must be given for the effect, that until the pulse has become soft. The tr ment of uremic symptoms has been m tioned, viz., the eradication of toxic s stances by a carefully chosen di second, to favor elimination by bow skin and kidneys. A combination of feine acts well with sodium benzoate an eliminant. Cardiac tonics are i cated when the heart has commenced fail. Digitalis must be combined w nitro-glycerin. Spartein for aged hea

In acute nephritis, if the albuminu appears during the fever of an infecti disease, a bath should be given wa and prolonged. For acute nephritis to chill of surface of the body, sw baths should be the first treatment. care of the skin is best attained by ord ing warm baths, and these are given tw or three times a week, duration one-h hour. Cold applications must be avoid The bath to be followed by one or hours' rest in bed. Attention must paid to the temperature of the bath-ro and the patient may be rubbed with cohol after the bath. The symptoms uremic poisoning, headache, weakn lack of appetite, are frequently relie by this method. Occasionally baths better when given in moderation. hot bath and sweat bath may be al nated and the patient directed to the third day. Edema due to nephritis well influenced by this form of treatme Winternitz advises the sweat bath of lower part of the body, with an ice over the heart when this organ is affect During the uremic attack the hot b and cold ablution have been highly be ficial. This is the only condition in wh cold applications are permissible. red granular kidney is best treated w prolonged warm baths every day or ev other day.

Bright's disease, in its acute form, curable. The chronic form may be c verted into the interstitial variety,

indurative process may be brought to
top. Unfortunately, chronic nephritis
rarely recognized in its early stages,
t frequently insidious, and the symp-
s that indicate its presence, headache,
ralgia, muscular pains, indigestion,
A tense pulse, an accentuated second
ic sound are not recognized in their
meaning and passed off lightly. Val-
e time is lost and the cause of the
ous troubles to come always leading
he exitus. Gout, lead intoxication,
nic lues, malaria, etc., goes on un-
ted till finally the symptoms make
r appearance that leave no doubt, in
y instances, too late for permanent
f. The destructive process has gone
far and, even if a halt could be called
his instance, the physiologic changes
ge, or some intercurrent disease find-
the resisting power of the organism
ken, will close the scene. It is, there-
, of the very greatest importance to
e an early diagnosis, and to consider
ptoms, no matter how little inconven-
e or trouble they may cause our pa-
ts and how quickly they may yield
reatment, as serious warnings of im-
ding danger of a progressive fatal dis-
, *unless properly treated.*

s soon as the diagnosis is made these
ents, if they are financially able, are
uently sent to springs that have ac-
ed a reputation for "curing Bright's
ase," with directions to take the wa-
which, as a rule they follow to the
r, consuming gallons of the liquid to
h the kidneys." Those that can not
e do the same at home. If we con-
r that interstitial nephritis is an in-
tive process, with frequently no sedi-
t in the urine and again a few
ine casts that can be detected only
r a most careful examination; urine
ight color, low specific gravity and
e quantities voided, we can readily
how *irrational* such a treatment is,
t realize the *danger* of such a course.
if we further remember that the
rt is the organ excessively taxed in
disease, that it always suffers, and
hypertrophy and myocarditis are
er absent in the advanced cases, we
h case must be studied and treated on
principles above mentioned.*

dschaux Building.

otes on the Contracting Kidney by the Au-
. *New Orleans Med. and Surg. Jour.*, July, 1902.

[Written for the MEDICAL BRIEF.]

Diagnosis and Treatment of Iritis.

BY L. G. WOODSON, M. D.,

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Iritis, an inflammation of the iris, is characterized by certain signs and symptoms, both objective and subjective.

The objective symptoms are discoloration of the iris; contracted and immobile pupil; posterior adhesions; ciliary congestion. The congestion is confined to a zone about one-fourth of an inch surrounding the periphery of the cornea. The subjective signs and symptoms are, pain —variable—lachrymation, photophobia, dimness of vision. Pain usually worse at night.

The disease is caused by syphilis (about sixty per cent of the cases), rheumatism (from twenty to thirty per cent), gonorrhea, gout, diabetes, infectious fevers and traumatism, making up the remaining percentage.

The disease is divided into three classes, serous, plastic and suppurative, the plastic being much more common and representing possibly about seventy-five per cent of the cases. Iritis is most common between the ages of twenty and forty-five years, though it is occasionally observed in children in the first few months of life, caused by inherited syphilis, and at a later period in connection with interstitial keratitis.

From the standpoint of the general practitioner I regard iritis as being one of the most important diseases of the eye, because it is exceedingly common, and unless recognized in its incipiency and properly treated, is certain to lead to a grave impairment of sight, or total blindness.

It is difficult to understand how it is possible for an intelligent practitioner to make a mistake in diagnosis of a disease in which the symptoms are so pronounced as in iritis. The condition is usually confounded with conjunctivitis, glaucoma, and cyclitis. The following points differentiate between these various diseases: In iritis, we have a contracted

pupil, discoloration of the iris, dimness of vision. In conjunctivitis the pupil and iris are normal. In iritis we have pain, ciliary congestion. In conjunctivitis there is no pain other than a gritty sensation in the eye, and vision is normal. In iritis there is no discharge. In conjunctivitis there is muco-purulent discharge. In conjunctivitis the inflammation is of a raw red, and the injection is confined to the blood vessels of the conjunctiva; while in iritis the congestion is confined to a circumcorneal zone about one-fourth of an inch wide, of a pink color, the vessels engaged lying beneath the conjunctiva.

Differential points between glaucoma and iritis: In iritis we have the symptoms already mentioned. In glaucoma we have a widely dilated pupil, shallow anterior chamber, tension of the eye-ball and severe pain. It is sometimes exceedingly difficult to differentiate between iritis and cystitis. In cystitis we have all the symptoms of iritis except the changes in the iris; pain, as a rule, is more severe; tenderness on pressure over the ciliary region, impairment of vision is greater than is found in iritis, though the differential diagnosis is of little importance between iritis and cyclitis, as they are usually due to the same causes and are amenable to the same general principles of treatment.

The treatment of iritis should be both local and constitutional. Local remedies consist first, last and all the time in the use of atropine to dilate the pupil and to prevent adhesions, or to break down those adhesions which have already formed before treatment is begun. Atropine not only dilates the pupil, but it paralyzes the ciliary muscle, relieves pain and places the eye in a state of physiological rest, which is most important in all inflammatory conditions. The strength of the atropine solution should be four grains to an ounce of water; one drop of this solution should be put into the eye every two or three hours during the acute stage of the disease, until the pupil is thoroughly dilated, then it should be used less often, as indicated. The eye should be protected from bright light by the use of smoked glasses, although if the photophobia be very severe, confi ment to a dark room for a few days m be necessary. Great relief may be tained by the use of hot applicatio cloths wrung out of hot water and plac over the closed eyelids for from fifte to twenty minutes at a time and repeat three or four times a day.

The abstraction of blood by artific or natural leeches may occasionally called for; my preference in these ca is for the artificial leech. Mercury a iodide of potassium should be given in cases. Mercury in some form when sy ilis is the cause, should be pushed to full physiological effect. In gout, rh matic and diabetic forms, salicylate soda, fifteen to twenty-five grains three four times a day, should be given. T bowels should be kept well open a moved regularly, and the patient's g eral health treated by tonics, such quinine, strychnine, iron, etc. The pr nosis in uncomplicated cases, as a ru is good where treatment is begun ea before adhesions have formed.

Woodward Building.

[Written for the MEDICAL BRIEF.]

A Case of Early Appearance of B lateral Adductor Paralysis of the Vocal Cords, Due to a Mediastinal Growth (Carcinoma).

BY WILLIAM KELLY SIMPSON, M. D.,

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History.—W. B., male, age, forty-fou admitted April 4, 1902; died July 29, 19 Father died of cancer of the thro mother died of apoplexy; three broth still living, all nervous; father non-al holic, but very nervous; venereal, but specific history; has been moderately coholic, but of late years abstemio heavy smoker, excepting last th months; moderate coffee drinker; exc sive tea drinker. Measles in childho

ore eighteen had several attacks of us (?) fever. Fever twelve years (intermittent fever), and severe nervness at the same time. At that time physicians said he had some heart ble; he could not sleep at night without sitting propped up in a chair. There slight discomfort over the heart.

s been in this country ten years, and the last seven years has had attacks ragging down sensations, sleeplessness, sweatings, and has been very nervall the time. Last June he began to attacks of retching and discomfort he epigastrium; these persisted for e days, and then the voice began to weak; for two days it was completely The aphonia was not complete, as his present attack. It persisted for st a week, when the voice gradually rned.

esent Illness.—About eight weeks ago began to notice the voice getting ker again. It gradually became e so for fourteen days, when present state of aphonia was reached. eding this aphonia he had a bad h for four months, of severe paroxyscharacter, but with very slight expection. Once or twice the sputum was d tinged. He thinks that for a few and before the onset of the aphonia ad a slight pain in the right shoulder. e went to one hospital for three weeks, re a diagnosis of tubercular laryn was made. Then he came under my rvation at the Vanderbilt Clinic for first time, suffering from complete nia, which was practically the only ptom presented; the vocal cords shown a complete bilateral adductor paralythe cause of which for the moment d not be definitely made out, though as ascribed to a probable mediastinal sure, as there were indefinite physisigns pointing to such a conclusion. subsequently entered another promit hospital where, after careful watching ten days, he was discharged with a gnosis of hysterical aphonia. There been some sweating at night and a of eight pounds in four weeks. He n entered the Presbyterian Hospital at request, on April 4, 1902, at which e the above history was elicited, and n which date the remainder of the history is continued, being taken from the official records of the hospital.

Physical Examination.—Patient well-nourished. Does not appear anemic. Tongue moist, highly coated. Pharynx and tonsils congested, otherwise normal. No pharyngeal anesthesia. Voice almost completely lost, can only speak in a whisper. Pupils are equal and react to light, somewhat contracted, no corneal anesthesia. Slight enlargement of the superficial glands in right axillary and both inguinal regions.

Heart.—Apex impulse not visible, barely palpable in fifth space, four inches to right of midsternum, just inside of midclavicular line. Sounds are best heard at this point. Left limit of dullness one-quarter inch inside this line. Action is regular and slow. Sounds are distant, but clear and of good force. Basal sounds are normal in intensity. No murmurs could be made out. Pulse is regular, of good force; no increase in tension, the two radial pulses are of equal volume and force; also, synchronous.

Thorax.—Thorax is symmetrical, no pulsations or bulging made out.

Lungs.—Anteriorly slight, comparative dullness in first left space, for a distance of two and a half inches to left of sternal border. In first left space the breathing is high-pitched and somewhat tubular in quality. Over the whole of the left chest expiration is prolonged and higher pitched than on the right side. Posteriorly these signs obtain as low as spine of left scapula, but no dullness is present.

Liver.—Percusses from fifth space to free margin of ribs, the edge cannot be felt. Spleen does not percuss, large, edge can not be felt.

Abdomen.—Soft, not distended; no tenderness.

Extremities.—Upper are normal, excepting for tendency to clubbing of finger tips, and slight cyanosis. Lower extremities normal.

Special Senses.—There is no contraction of visual field, no loss of sensation to pain, touch, or temperature. There is some bilateral loss of taste. Patient can not taste salt placed on circumvallate papillæ; no anosmia.

Larynx.—Examination made by myself. Complete bilateral adductor paralysis of vocal cords, inability to make any expulsive cough; any attempt at coughing being with great effort, and with very weak sound (voiceless cough), with no motion of cords during the attempt, and great difficulty in dislodging any accumulation of mucus in the larynx.

The irritation from the accumulation of mucus in the trachea and larynx, and the desire to expel it, coupled with the inability, produced almost constant severe efforts at expulsion, which became more and more marked as the case progressed. The mucous membrane of the larynx was extremely pale in color, there being but little contrast between the vocal cords and the rest of the intra-laryngeal surface. There was no other intra-laryngeal lesion.

April 10. Dyspnea more marked; coughing spells more severe and frequent. Condition seems worse each day since admission.

April 13. Electric sparks were drawn from anterior aspect of neck last night.

April 23. Patient is coughing up large amounts of watery expectoration. Expiration at the apices posteriorly is markedly prolonged and higher pitched, an occasional subcrepitant râle heard. There has been a slight rise of temperature for three days. Cause not discovered.

April 25. Temperature rose from 99° to 104° F. during last night. This morning it is down to 100° F. Slight chilly sensations. Still no cause for rise of temperature ascertained.

April 29. Temperature continues irregular. Tubular breathing is more marked this morning, on left side it extends down as far as spine of scapula; no change in the percussion note or breathing sounds.

May 4. Laryngeal examination by myself reveals no change from former condition.

May 6. Patient is gradually losing ground.

May 15. This morning complains of pain shooting down right arm. Temperature 101.5° F. No change in physical signs observed.

Since May 15 several injections of toxines of streptococcus have been employed, with moderate reaction. Patient continues to lose weight; signs in the ch same.

June 14. Patient feels weaker; there some loss of power in both hands, es cially in the left; complains of consid able pain in back of neck. No appre ble change in thoracic symptoms. V little reaction from injections of Cole fluid.

July 3. Patient is losing strength s flesh, voice much weaker, some tubu breathing at apices posteriorly, sli bloody expectoration.

July 29. Patient has continued to l ground, had a bad attack of dyspn which lasted all night. Great difficulty breathing this morning. Became rapi worse and died at 9:10 P. M.

Autopsy made by Dr. Tuttle. Fra medium; adipose, scant; muscles, a phied.

Diaphragm.—Fourth rib left. Fou rib right.

Heart.—Pericardium contains 240 c of turbid serum. Valves normal. Mus appears a little atrophied; brownish.

Pleural Cavities.—Some slight ad sions around the bronchi. In lower p of upper lobe is an area of pneumon yellowish grey in color. There is a m of cancerous lymph nodes around bronchi, and the new growth rami along the bronchi throughout the lo lobe, and causes an uneven thickening the walls of the larger bronchi.

Right Lung.—A little adherent on ner surfaces to mediastinal growth. bronchial lymph nodes and the walls of large bronchi are cancerous. Remain of right lung normal.

Peritoneum.—There is a mass of re peritoneal lymph nodes moderately larged and cancerous, and a few scatte ones just down along the lumbar ve bræ.

In the superior mediastinum is a h irregular mass, extending from the s num in front to the vertebral column, from near the thyroid cartilage ab down behind the precordium, nearly the diaphragm. It surrounds the bifu tion of the trachea, and the large ves passing to both lungs, completely rounding the arch of the aorta and large ascending branches. In front flattened layer, about three-quarters of

nch thick, occupying the position of the hymus gland, and the remainder being nade up of cancerous lymph nodes.

On laying open the esophagus a portion lying behind this mass shows a number of whitish nodules projecting on the nner surface and without any ulceration, he mucous membrane apparently being ntact. The two large bronchi also show ancerous masses narrowing the lumen, ut without any apparent ulceration.

Abnormal Conditions.—Carcinoma of ediastinal glands. Carcinoma of left ung. Carcinoma of retro-peritoneal lands. Acute lobar pneumonia.

Microscopical Report.—Liver. Quite iffuse capillary dilatation. Small angioma; more or less injury to hepatic tisue in neighborhood.

Lungs.—Extensively invaded by cancerus growths. The cell groups of variable ize and shape. The cells themselves nostly medium, large and round. Much onnective tissue formation, with small roups of leucocytes and slight hemorhages have extensively obliterated structure of lung. Some small pneumonia reas. Some normal alveoli.

Mediastinal tissue also cancerous, but he connective tissue is more dense, and he cell pockets are larger.

During the patient's early stay in the ospital the radiograph was used and nowed to a certain extent the outline of he mediastina tumor.

In the recital of the history I have nitted the details of treatment, besides otes, and the various blood examinations hich have been strictly performed, but ear no special relation to the progress of he case.

The object of presenting the history of his case, from a laryngeal standpoint, is hree-fold:

1. To record an instance of complete, ermanent bilateral paralysis of the vocal rgans, which is the rarest form of laryneal paralysis.

2. To emphasize the early appearance f laryngeal paralysis, as an indication f intra-thoracic pressure, which is so ommonly observed in unilateral parlysis, and often, as in this instance, anedating any positive physical signs within he chest; and,

3. To note the difficulty of exactly defining the lesions, even when autopsy has proven it to be extensive, and as an additional reason, the diagnostic assistance rendered by an X-ray examination.

In using the term, complete bilateral adductor paralysis, in this case, I do so with due caution and appreciation of the term "cadaveric" position; which is, I think, but comparative, and according to Fein, a misnomer, he having found ten different positions in the cadaver. I made repeated examinations of the larynx and was much impressed with the completeness of the adduction, it having much more than the usual appearance of the so-called cadaveric position.

I wish to acknowledge the assistance of members of the medical house staff at the Presbyterian Hospital, and Dr. S. F. Jones, pathological interne, in presenting this report.

952 Lexington Avenue.

[Written for the MEDICAL BRIEF.]

Pneumonia.

BY T. J. DANIEL, M. D.,
President Arkansas Eclectic Medical Association.
Magazine, Ark.

Pneumonia is one of the most dreaded diseases we are called upon to treat, yet we read in medical journals where men have practiced medicine thirty-three years and never lost but "three cases" of this dread disease. When I read such startling statements and then find nothing new in the treatment, I am made to doubt the doctor's diagnosis. Calomel, aconite and carbonate of ammonia have been given in the treatment of pneumonia for years. Is it not strange that some can practice medicine for "thirty-three" years, use the above treatment and not lose but "three cases," while others lose about thirty-five per cent? There can be no routine or fixed treatment for pneumonia. You might have four cases at one house, and each require different treatment. It would depend upon the stage of the disease, and the conditions present.

I flatter myself that I have been as successful in the treatment of pneumonia as most physicians, but can not boast of

having only lost "three cases" in thirty-three years. If I am called to a case and find the tongue coated with a yellowish coating, or any other, tissues full, full abdomen, full veins, I give them the following:

℞ Podophyllin.....1 grain.
Leptandrin.....4 grains
Dioscorein.....4 grains.
M. ft. caps. No. 4. Sig.: One every two hours till bowels move.

If purse is full and bounding, or full and hard, I give:

℞ Spec. Tr. Veratrum.....30 drops.
Aquæ Puræ.....q. s. ad.....4 ounces.
M. Sig.: Teaspoonful every hour.

If there is pain in the side, or in right side of head, or flushed right cheek, or dusky skin, I add specific bryonia ten drops to the veratrum. I hold them on this, till the conditions change, or till the crisis comes. When the crisis comes and the temperature goes down, pulse becomes weak, I give small doses of strychnine, say a fiftieth or sixtieth of a grain, every three or four hours. And if the pulse becomes small and fast, showing a want of power of the heart to propel the blood, I give specific tincture of digitalis, about one or two drops every hour. But I *never* give it unless this condition is present. A man who would give digitalis with a full, bounding pulse, or a full, hard pulse, or with even a small pulse, hard or sharp, is not a good practitioner. As to local applications, I generally sprinkle the old emetic powder (com. powder of lobelia) upon a greasy flannel cloth, and apply over the diseased lung. The above is my treatment of pneumonia with the condition as described. But many times we have cases where the above condition is not present. Instead of the coated tongue, full tissues, full abdomen and full veins, we will find a small tongue, red tip and edges, pulse small and sharp, sometimes nausea. With this condition, I would move the bowels with sulphate of magnesia, or, possibly, give small doses of calomel, one-sixth grain every hour, until six doses are taken, then give the magnesia. At the same time I give:

℞ Spec. Tr. Aconite.....10 drops.
Spec. Tr. Ipecac.....10 or 20 drops.
Spec. Tr. Rhus. Tox.....10 drops.
Aquæ Puræ..... q. s. ad,..... 4 ounces.
M. Sig.: Teaspoonful every hour.

I hold them upon this till the condition changes, or the crisis comes. When the temperature falls, or if the heart's actio should become weak, I would give ca bonate of ammonia, if tongue was pale c had a white coat on it. But if not pal but rather red, I would give the muriat of ammonia. If the heart's action shoul become irregular, I would give specif tincture of cactus, from two to four dro every two hours. If, during the cours of the disease, the skin should becom purplish, or of a leaden color, or look lik one exposed to cold, I would give specif tincture baptisia. Add twenty or thirt drops to the aconite mixture, and give teaspoonful every hour. Should the co dition become such that I thought ant septics were indicated, I would give:

℞ Spec. Tr. Echafolta.....2 to 3 drachm
Spec. Tr. Baptisia..... .....½ drachi
Aquæ.....q. s. ad.....4 ounce
M. Sig.: Teaspoonful every two hours.

If the breath should become very o fensive, smell like a cadaver, or like woman with puerperal fever, I would pu one drachm of chlorate of potash to aqu four ounces, and give a teaspoonful ever two or three hours, instead of the ech folta and baptisia. There is not a rem edy in the *materia medica* that wi change the odor quicker than the chlora of potash. Try it and be convince Should the patient at any time during th attack become restless, with *flushed fac* I would give specific tincture gelsemiun Add one-half to one drachm to aquæ fou ounces, and give teaspoonful every hou Or, should he become restless, with *pa* face, specific passiflora; one-half drachi to one drachm every one or two hour will keep him quiet.

You have heard people say, "Passiflor is an uncertain remedy, sometimes it act well, but at other times it will not act a all." This is because it is given whe contra-indicated. Restlessness, with pale face, is the indication for it, and will seldom fail to act admiraby with thi condition. No remedy will act well whe not indicated. If the patient should b come dull, capillary circulation sluggish and patient inclined to sleep, I would giv belladonna, five drops to ten drops t aqua four ounces. Sig: teaspoonful ever hour.

If there is any symptom of effusion i the pleural cavity, bryonia is the remedy If there is a remedy in the *materia me*

ica that will promote absorption, bryonia will. In malarial regions, if there is periodicity, I give quinine.

Never give alcoholic stimulants, or any other stimulants in the first stages of pneumonia. Never give strychnine where the temperature is high, rigidity of the muscles, or nervous excitement. The condition calling for it is one of atony, with relaxation.

When the skin begins to get moist, asclepias tub. is one of our best remedies in the treatment of pneumonia, especially in children. When the pleuro is involved, have thought adhesive strips properly applied give relief. Much more could be said upon the treatment of pneumonia, and I would like to say more, but space forbids. A good rule is, to be sure and not give a remedy unless it is indicated. And, be sure you *know* when it is indicated. Study the action of your remedies, note carefully the condition of your patient, and be sure and not give anything that would injure him in the least. I have heard people say, "Well, if so and so does not do him any good, it will not do him any harm." A greater mistake was never made. Medicine is a force, and when taken into the system it expends that force upon it, and it is either for good or harm. An alkali given when an acid is indicated, does harm.

[Written for the MEDICAL BRIEF.]

Some Remarks Upon the Treatment of Acne Vulgaris.

BY J. WILLIAMS LORD, A. B., M. D.,

Clinical Professor of Dermatology in the Johns Hopkins Medical School; Dermatologist to the Johns Hopkins Hospital and Dispensary, etc., etc. Baltimore, Md.

Acne vulgaris, so well known as an inflammatory disease of the sebaceous glands, is rarely mistaken for any other condition, at least, in its early stages. It occurs most frequently in patients between the ages of fifteen and thirty, but is often found later in life.

The inflammation is usually confined to the face, but frequently eruptions appear upon the back and shoulders.

Subjective symptoms are few, and oftentimes are entirely wanting. Occasional pain, when the pustules are actively inflamed, is the only sensation complained of by the patient. There may be itching, slight or intense burning, and a feeling of discomfort.

The disease is always marked by the appearance of comedones (blackheads) and pustules.

Treatment.—Locally, press out the comedones (blackheads) by means of a comedo expressor; then open up the pustules with a Von Graefe cataract knife, which is particularly adapted to this purpose, by reason of its long and sharp blade. Follow this procedure by an application of Kummerfeld's lotion, composed of sulphur precipitate, four drachms; powdered camphor, ten grains; powdered tragacanth, twenty grains; aqua calcis and aqua rosæ, each two ounces.

This lotion is applied to the face, allowed to remain over night and washed off in the morning. After using it for about a week the face will often present a "dry" appearance, with scaling of the skin, although this condition is not always the case. When it does occur, however, limit the use of the lotion to three applications a week, and in the meantime apply cold cream to the face. An improvement will take place in the course of two or three weeks.

If there are many pustules upon the face a few applications of the X-ray will prove of decided benefit.

Diet.—The question of diet has always played an important part in the treatment of this annoying condition. However, I make it a point to forbid only such articles of food as are difficult of digestion, as, for instance, pork, sausage, pastries, candies, etc., etc. I do not advise a complete elimination of such articles as are known not to disagree with the patient under treatment. The patient's individual idiosyncrasy must be taken into consideration in this connection.

So far as internal medication is concerned, I use no drugs, unless there is some internal disturbance which needs correction. Constipation, a common condition in this disease, requires appropriate treatment, but my rule is to use as little medication as possible.

To sum up: My chief reliance in treatment is the local application of suitable

lotions to the face. A regulation of individual diet, and recommend as much exercise in the open air as possible, cold baths, and, lastly, the X-ray as a helpful remedial agent.

1011 North Charles Street.

[Written for the MEDICAL BRIEF.]

The Need of Pure Milk and the Difficulties Met With in Procuring It.

BY WM. H. PARK, M. D.,

Professor of Bacteriology and Hygiene in the New York University and Bellevue Hospital Medical College; Director of the Research Laboratory of the New York Health Department. New York City.

There is no difference of opinion among physicians and sanitarians as to the danger of pathogenic micro-organisms in milk. The chief varieties to be feared are the typhoid, dysentery, diphtheria, and tubercle bacilli and the unknown germs of scarlet fever.

At first glance it might seem very easy to prevent the infection of milk with these bacteria, or other micro-organisms, but when we remember that the consumer and, in fact, the dealer, living in large cities, knows almost nothing of the conditions on the farm, and that practically no health department has any close supervision of the farms from which this milk comes, we can see that it is rather a matter of luck, or good fortune, than through precautions that are taken, that the milk we drink is free from these organisms. The only adequate means now being used is through the co-operation of private societies with health departments, dealers and consumers. The largest co-operative work of this kind is carried on in New York City, where the County Medical Society has a commission, who act as a committee body between the consumer and the dealer, or farmer. The Health Department gives its laboratory for the bacteriological and chemical examination of the milk samples, sent from time to time. The commission has formulated a number of requirements for two varieties of milk, one of which is called "certified" milk, which must be produced under conditions as good as can be conceived; the other, which is called "inspected milk," must be produced under what we might call decent conditions; that is, the farms must be fairly clean, the cattle health the milkmen clean and free from diseas and the milk thoroughly cooled in tra sit.

Both varieties of milk are under co stant inspection by inspectors paid by th County Medical Society. The money fo this comes from the dealers whose mil is being inspected. At present six tho sand quarts of certified milk are so daily, and a somewhat less amount inspected milk.

When we come to the supply for th poor of the city it is at present impossib to guarantee a thoroughly wholeson milk. Milk which is really pure can n be retailed for less than eight cents quart, and the poor are, as yet, hardl ready to pay such a price.

Much can be done to improve the su ply, as, for instance, in New York Cit milk must be under 50° F. when it enter and if not, it is now being dumped in the gutter. As, perhaps, the greate harmless preservative of milk is cold, ju this one action has a great effect in pr venting deterioration of the milk. Th creameries and railroads are also bein regularly inspected. Notwithstanding tha much is being done it is still impossib to secure an absolutely pure milk supp for the poor, and we have been compelle to advise those not using certified milk purify it by heating, or pasteurizatio For the past four years a large numb of infants have been watched, one-ha getting pure, unheated milk, and the oth half exactly similar milk heated. The r sult has been very striking and great in favor of the heated milk. The childre fed on heated milk have flourished, whi among the others, in spite of every car there have been many deaths during th hot months.

It is understood, of course, that th babies are not actually put on raw mil but simply a certain proportion four taking it are not changed from th raw milk to the heated milk. was the unanimous opinion of th physicians looking after these ch dren that the care they received was of much importance as the kind of mil This covers clean bottles, willingness an ability to carry out directions as to met ods of feeding, quantities furnished, th

topping of milk at the first signs of seri-
us diarrhea, the proper care of the milk
self while in the house, and the meth-
ds of sterilizing; suitable clothing, and
eanliness of the child, and as much
resh air as possible—most of the physi-
ans stating that, leaving out the worst
ore milk, the good results were effected
ore through the difference in the care
the child. During the cool weather the
ind of milk did not seem to influence the
ortality to any great extent, but during
ie hot weather, when the resistance of
ie child was lowered, the kind of milk
ken, whether raw or heated, did influ-
ice the amount of illness, and the mor-
lity. Those who were given condensed
ilk and store milk did the worst, and
ose who received breast milk, pure bot-
e milk, and pasteurized milk, did the
st. The effect of bacterial contamina-
on was very marked, when milk was
ken without previous heating, but, un-
ss the contamination was very exces-
ve, the heating was sufficient to make it
irly wholesome.

315 West Seventy-Sixth Street.

[Written for the MEDICAL BRIEF.]

Measurement of Eye Strain.

BY GEO. A. ROGERS, OPH. D.,

rincipal Chicago Post-Graduate Optical College.
Chicago, Ill.

Optometry reduces all principles per-
ining to the eyes to exact measure-
ents, the lineal unit of which is the
eter of practically forty English inches.
is difficult to comprehend how *eye*
rain, or fatigue of the eyes, can be re-
uced to exact measurement. It is not,
fact, but to relative values. But this
ves as perfect a basis of comparison as
the units were absolute.

If you take an ordinary rubber band,
ch as is used to hold a package of pa-
rs together, and loop it over the thumb
d finger, the elasticity of the band
olds the digits together. To separate
em one inch, two inches, three inches,
c., requires increasing muscular effort.
he first inch separation may be easy,
e second is much harder than the first,
e third may be very difficult. To sep-
rate them to the widest extent and con-
nue to hold them there is impossible.
is not the muscles that are put to the test, but the nervous force compelling them to act.

The above example illustrates the action of the ciliary muscles in accommodation, or adapting it to varying distances of the object. The limit is not far away, and the nearer the ciliary approaches the limit the harder the effort to obtain a required action. There are elastic forces in the eye that resist the effects produced by ciliary action, and such elastic forces are constant, because they are merely physical. Lifting a heavy stone may be possible, but how long can it be held, with gravity constantly drawing it toward the earth? How much harder it would be if the higher the stone was raised the heavier it would become.

To accommodate 1D., the normal amount for one meter, requires that a certain voltage of nervous force be sent to the ciliary. It may vary for different individuals, but that is neither here nor there. Designate the nerve force required to maintain such action one second a neuro-diopter. What nervous force would then be required to accommodate 2D., the normal amount for one-half meter? It is evident that the second diopter of action would, in itself, call for greater force, as in stretching the rubber band the second inch would be harder than the first. But in addition to this new demand for nervous energy, the previous force must, also, be maintained, which further adds to the demand.

It is evident that a simple physical law is operative in such cases. It corresponds to the law that "resistance increases as the square of the velocity," or to the law governing the law of falling bodies: The distance covered each second increases as the odd-numbers, 1, 3, 5, 7, etc., and the whole space "as the square of the number of seconds," based upon the distance fallen the first second. This would make the normal accommodation in diopters and the increase of nervous force required for each and all as follows:

Distance.	Acc.	N D.	Total.
Infinity	0	0	0
1 Meter	1 D	1 N D	1 N D
½ Meter	2 D	3 N D	4 N D
⅓ Meter	3 D	5 N D	9 N D
¼ Meter	4 D	7 N D	16 N D
1-5 Meter	5 D	9 N D	25 N D

This gives the key to the rapid exhaustion of the eyes that are, even when normal, *used excessively* for near work, or that are used for *excessively-near* work. But the normal eye is always within reach of the abatement of such condition. It can stop and rest by being turned to the distant object. Even the sign, "Quaker Oats," on a bill board across the street, is the "friend in need" that rescues it from over-strenuous labor and rapid tendency to exhaustion. A little rest, how good it is, for over-worked and imposed-upon eyes. They go back to their work like a pair of school boys, after fifteen minutes' relief from the tedium of the school room. But even for such normal arrangements of work and rest, they cannot be imposed upon with impunity.

But consider the case of the hypermetrope of, perhaps, 2D. For distance alone each eye requires 2D. of accommodation and 4ND. of nervous force. For the ordinary reading or working distance of 1-3 meter, each eye requires 3D. more accommodation, or 5D. in all. This represents 5_2=25N.D. of nervous force per second for each eye, or 25—9=16N.D. in excess of normal. While "Quaker Oats" may be a momentary comforter, cutting the rate of energy required down to 4N.D. for each eye, this is not rest, or it is the rest that the farmer gave his harvest employes at the noon hour. He lets them cut wood. Such eyes have but two modes of rest—sleep and death. Oh, yes, there is another. Nature seems to have a remedy for all things, save the proverbial "death and taxes." A pair of +2D. spheres carefully fitted in metal frames and put across the nose relieve the situation. They reduce the eyes to artificial normality. There are still nervous requirements, but only the normal amounts, and there is, oh blessed privilege, a chance to rest, if only for a moment at a time. For the bill-board across the way still holds out its sunny hand and says to tired eyes: "Come unto me all ye that labor and are heavy laden and I will give you rest." But come with your spectacles on, please. No remedy in the whole *materia medica* will be the equal of a dose of the above prescription for "Quaker Oats," or other bill-board specific.

The measure of eye stress is the *nor*
but *excessive* use of the accommodat
but the measure of *eye strain* is the m
ure of the *abnormal* expenditure of ne
force upon the eyes for a particular vi
point—the amount they need to use
corrected in excess of that which t
would require if reduced by lenses t
normal state of refraction. A 2D.
perope requires 25N.D. for ordinary re
ing in each eye. The normal amount
9N. D., making an excess of 16N.D.
both eyes the excess is 32N.D. per seco
1920N.D. per minute, 115,200N.D.
hour, or 1,152,000N.D. per working
of ten hours. And this is the accom
dative strain merely. There are ot
factors to be considered—those perta
ing to the extra-ocular muscle system

In the case of 2D. hyperopia the eyes
see distance distinctly, require 2D.
commodation each, or 4N.D. of nerv
force each. If the extrinsic m
cles, disregarding this influence, are i
condition of normal poise (orthophor
the hyperopia, by stimulating accom
dation, tends, also, to stimulate the c
verging muscles (the interni and also
superior and inferior recti), as these m
cles, operated by the third nerves, are i
mately associated in action with the
laries. And such stimulus tends to cr
the eyes and produce diplopia. To ov
come the latter effect the externals
called into action. But a slight tens
on the converging system requires,
neutralize it, a much greater innervat
of the externals. Granting that in
accommodative action, the internals wo
tend to converge one meter angle ea
about three times that force on the part
the externals would be required to n
tralize the tension, making 3_2=9N.D.
each of the externals, or 18N.D. per
ond, in addition to the 2N.D. on the c
verging muscles, or 20N.D. in all. T
more than doubles the nervous leaka
which is not increased, or reduced,
near vision.

Such a waste of nervous force up
these organs is undoubtedly responsi
for some of the most serious cases
nervous exhaustion, and the derangem
of the normal functional action of orga
remote from the eyes. The eyes are
most imperative of all the organs c

olled by reflex action. They demand d receive their supply whether there is undigested dinner in the stomach or t, and the organs concerned in the pro-sses of digestion have to take whatever ere may be left for them to use. It is t surprising, therefore, to find many ysicians awakening to the fact that to agnose some of the simpler organic de-ngements knowledge of refraction and e condition of the eyes is not to be ig-red.

Wabash Avenue.

[Written for the MEDICAL BRIEF.]

Catarrhal Appendicitis.

BY S. L. BAYSINGER, M. D.,
Rolla, Mo.

The following will be found satisfactory the treatment of catarrhal appendicitis: hen satisfied of the diagnosis, give hy-dermic injections of morphine sulphate sufficient doses to control pain and miting. Cover the affected area with a rm and thick kaolin poultice, changing ery twelve hours for the first two days, en every twenty-four hours. Give one two teaspoonfuls, as needed, of liquid gnesia, to produce at least two or three e movements from the bowels every enty-four hours. Keep the patient quiet bed on a liquid diet.

[Written for the MEDICAL BRIEF.]

me Hydrotherapeutic Methods of Treating Sciatica.

BY ALFRED W. GARDNER, M. D.,
fessor of Hydrotheraputics at the New York School of Clinical Medicine.
New York City.

During the past three or four years I ve seen many cases of sciatica, and m my own experience and that of ers the disease seems to be on the in-ase, and a question has arisen in my nd as to whether the disease is of rheu-tic origin or due to a general inflam-tion of the sheath of the nerve. In her case, however, the treatment of the dition is practically the same.

Many of my patients come to me with history of previous treatment by every own method, including medication of ery sort. Under those circumstances I e as few drugs as possible, and with excellent results. The treatment of sciatic patients by means of steam massage has given me, perhaps, the best and quickest results. This method of treatment, which is of German origin, consists in placing the patient upon a frame made of cane fitted over a bath tub, through which the steam could pass. This arrangement allows the patient to lie in a perfectly relaxed condition during the steam bath, which is not the case when the patient sits in a so-called steam cabinet. In the latter instance the patient, to retain the sitting position, must necessarily hold rigid the muscles, which are perfectly relaxed in the horizontal position. A cold towel is placed upon the head of the patient, and the body wrapped in blankets. The duration of the steam bath varies, according to conditions, but is not shorter than five minutes. The improvement following this treatment is as rapid as it is successful. A history of the case following may be of interest:

A patient, thirty-four years of age, female, presented herself, suffering with a very severe attack of sciatica; intense pain over the spinal cord and lumbar region. The pain in the lumbar region was more marked at night. She was unable to walk or stand in an erect position. She had been lying in a horizontal position for four weeks. I began treatment by giving her natural sulphur water douches over the sciatic nerve; temperature, 98° F. to about 115° F.; pressure, about ten pounds, and duration four to five minutes. Under this treatment she improved for four or five days. The pain left the spinal cord and she was able to stand for a few minutes. Then followed an afternoon and night of intense pain. The following day, instead of giving the douche I had her take what we call steam massage. The effect of this treatment was a marked improvement, and was continued for some days, alternating with continuous hot douche. The improvement continued until she was able to walk from her cottage to the hotel for her meals. During this time not only was her general condition much improved, but also her appetite, strength and general appearance. She returned home and was able to sleep for the first time since her attack without narcotics. I saw her since her

return home and she is suffering practically no pain, taking exercise daily, and general health continues to improve.

In every case I use as little medication as possible. I feel that the general nutrition is a very important factor in keeping the intestinal canal in proper condition. I treat my patients either with the continuous hot douche, or with the alternating hot and cold douche, and with steam massage. These I have found to be the three great factors in the treatment of sciatica.

325 West Eighty-Ninth Street.

[Written for the MEDICAL BRIEF.]

Chemistry and Psychology—Chemistry of the Body as Effected by Adverse or Favorable Emotions—Psychology, Chemistry and Magnetism of Love, etc.

BY A. A. LINDSAY, M. D.,

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St. Louis, Mo.

The pathologist has collected much data demonstrating the chemical changes that take place in the human body through the darker emotions, such as anger, fear, jealousy, hate, and all the dark passions. He has learned that the secretions of the body that should be normally alkaline in their reaction become acid, and those acid alkaline, due to these untoward mental excitements. Various secretions of the body, such as the salivary, gastric, the perspiratory, and others of the excretions thereby, modified. And I think I am safe to say it is within the experience of the average physician to know of the mother's milk becoming poisonous to the child when the mother has had a shock, or been under the influence of the dark emotions.

Now, if a spasm, a wave of wrong emotion change the chemistry of the body and, therefore, the cell substance, it must take a powerful force to so react as to make the body take its equilibrium again, and be just as though no such wave had passed over it. Again, this is true, that giving way to an irritation once makes it so much easier to yield again that one shock after another is impressed upon the organism, and the vital force never ceeds in adjusting the body after paroxysm before another attack co and so we have chronic morbidness constant irritability (wrong emoti states), compelling tissue changes, a confirmed pathological state establi in the body through mental action. W ing diseases, of which tuberculosis is ical, may have their origin in fear, a jealousy, or any other inapposite ex ment, for these make their most profo impress upon the portion, organ, or ti whose standard of resistance is the est.

The science of all the above is something from the outside strikes mind (objective consciousness), infla it, and passes to the soul (subconsci ness) that presides over all the funct and forces of the body, and is controll by suggestion, an inflaming suggest and under that suggestion it acts, ch ing the chemistry to abnormal, becau is influenced in an unnatural way, as in anger, often causes violent re ance, with a much increased power, cause the soul brings the involuntary tems to its use. That is why one str with a blow so powerful and harder t he is conscious of, when he is mad. uses his voluntary, but his involun muscular system as well, and so it is do such marvelous physical feats u excitement.

If, under the impress of these unwl some emotions, such adverse chemistr produced, why do we not, when we disease and wrong chemistry appea the seat of the emotions, the soul, put there the most beautiful picture health, happiness, joy and peace, g expectancy of uplift, forgetting morbi and depression until the whole bein filled and thrilled with the glad emoti Talk to the soul, I say, and get the r expectancy there, for a man becomes i his head to his feet, from his skin to marrow, the expression of that which soul believes, and the thought he l will become expressed in the contour composition of his physical organism health is to abound it will be thro outward expression of an inward sciousness. Love, hope, faith, and all ful emotions must be enthroned, and

place left for the evil, and the chemistry of the body will stay normal.

Every passion has its characteristic chemistry. If it be a spiritual passion, that is, a passion that issues from within, there is health in it. If it be a darker passion that has its beginning in the sensual nature, there is disease in it.

In the discussion of chemistry and psychology there is no more striking illustration of how thought changes the chemistry and magnetism than in what passes for a love affair of the average sort.

A lady and gentleman meet, and when they look into each other's eyes, or clasp each other's hands, there is an exchange of some mysterious kind that is pleasurable and so noticeable that one or the other, or maybe both, observe the more than ordinary attraction between them. They get into each other's company and find, with ripening acquaintance, the growing intensity of attraction, and they begin to think and assert that they undoubtedly are intended for each other, and had been from creation and, therefore, would be for eternity. In this type I am now describing the attraction is purely magnetic, due to the affinity of positive and negative electricity, the same force that is present in all matter, whether it is in the human organism, animal, or mineral. Two men with such magnetic polarization falling into each other's arms in the dark, and each thinking the other to be a woman, would experience the same thrill of attraction as if opposite in sex. This takes much of the romance out of the usual love affair, so called, but we need to teach scientific truth to counteract the ruin that comes through the fiction which in its representation of love has its heroine and hero falling into each other's arms by some accident and discovering this eternal fitness for each other, because it was so pleasant to the senses, and our novel students grow up looking for that experience that will prove their infinite mating. Our lovers meet that way and experience an electric discharge, just like that which takes place when my patient sits under the head breeze of my static electric machine, when you see the spark jump from her head to the brass electrode and, no doubt, there is the same bright spark and a keen snap takes place when these lovers touch, as described, and I wonder if that is why love-making has been called "sparking," and was so named by an inspired individual, who spoke better than he knew? Anyway, the courtship is started, and the suggestion exchanged that they must have each other, for it is a fixed, divine decree that they must answer. They have emotions and so begin changing the chemistry of each other's bodies, placing in every cell of their bodies a chemistry that can only be answered by contact each with the other. The violent rushing together of hydrogen and oxygen is no comparison with the resistless demand that these respective chemicals make for satisfaction in each other. After all this wild physical attraction is awakened it is too late to consider anything as to their mental and spiritual fitness, or equality of birth, or heredity, in any of its possibilities. They have accepted the one suggestion that they were created for each other, and that fixes it all for them. They marry and under their more intimate and constant association the laws of chemistry and magnetism are satisfied, and, just as in putting a demagnetized piece of iron in touch with a magnet, the two pieces become of like magnetism, and they fall apart and are repelled by each other. Or, like the coming together of the hydrogen and oxygen, there is the production of the quiet, satisfied body of water. Now, the individuals knowing nothing of the basis of their union, and supposing they would always experience the same wild thrill as during courtship, find there is no such thing. They do not want to be like the calm body of water, that looks too dead, and they do not like to admit that they repel each other like the two magnets of like polarization, but one or the other will first suggest, "love is dead, or you love some one else, for your kisses do not thrill like they used to."

Of course, if they knew the basis of their union was physical and, therefore, due to magnetism and chemistry, and did they know that the two gases could be separated that comprise the water and they would want to rush together again, or that the metals that had been magnetized alike would again be demagnetized

so their polarity would attract again, and from that reasoning know that they could be in touch less, and soon feel the same attraction that bedimmed their reasons in courtship days, they would adopt that method rather than proceed at once to living disgruntled lives, or resort to divorce court.

Brother physicians, we should be teaching these things, for no one else knows how, but we should go beyond this physical matter, and be able to teach what the pulpit, nor the college professor is doing, that all such love affairs as the above, although constituting probably ninety-nine per cent, are abnormal, for the union is based upon an emotion that had its origin outside of the individual, or, at least, appealed to his sensual nature first. Teach that there is such a thing as love, but it has its nativity in the soul, and if persons are to be truly married this soul attraction must have precedence, and its promptings must be known before the sensual nature is aroused, and the wrong suggestion fastened upon the souls. The soul presides over the body and, therefore, a marriage based upon spiritual fitness will bring out all the possibilities of the physical in the most intense manner. Education that involves the instruction that there is a soul affinity from which all good will issue, but that there is a physical, or sensual, which, if it have the initiatory, will ruin every hope, is, as a preventive measure, as important.

It is the feeling that every couple has that no one but his or her particular mate could be so wildly attractive is the source of the most missteps. Teach the youth that there is no novelty in it, but that it is by law of the most common force in the world that they are attracted, and that even a cat enjoys being smoothed, and is attracted to him by the same law that he thinks makes him and his companion the exclusive affinities, and he will analyze his situation and may be will look out for that companionable one who appeals to his soul first, and may never effect his sensual nature at all, or if so, the soul will be master and sensuality and hence repulsion will not result from the union.

"The Psychology and Chemistry and Magnetism of Love" is a subject worthy of our careful attention. Psychology has a larger field than suggestive therapeutics and hypnotism. Let our capable men continue to write upon these matters.

4134 McPherson Avenue.

[Written for the MEDICAL BRIEF.]

The Pelvic Brain—The Cervico-Uterine Ganglion.

(Ganglion Cervicalis Uterina.)

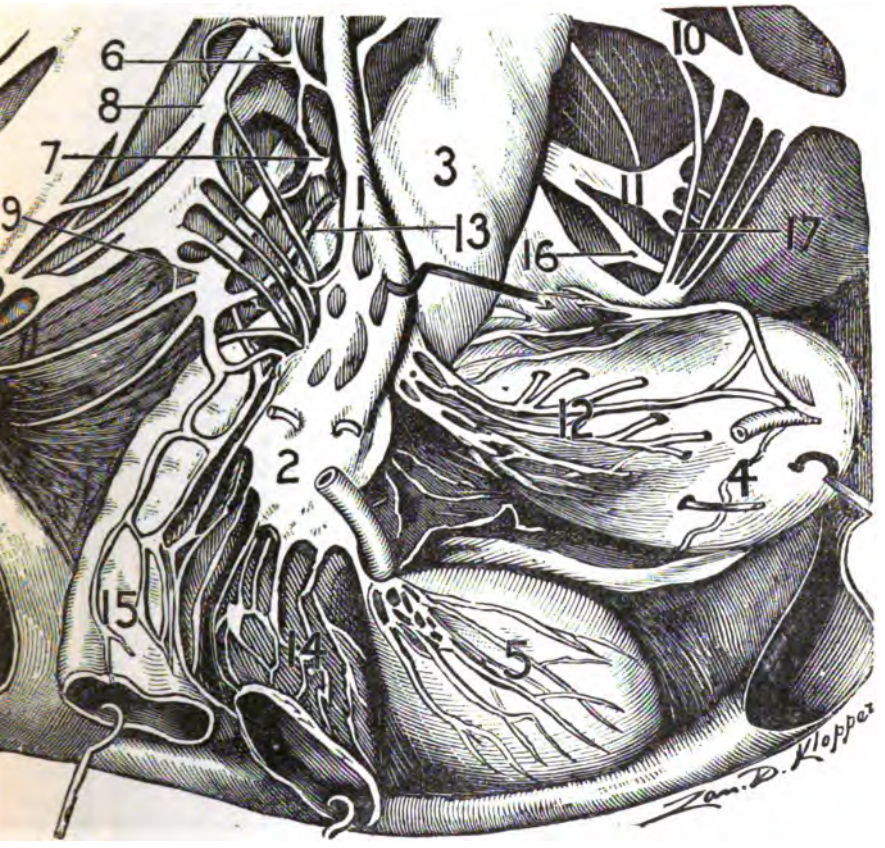
BY BYRON ROBINSON, B. S., M. D.,
Chicago, Ill.

I have termed the collections of nerve ganglia located closely adjacent to either side of the cervix and vagina—the cervico-uterine ganglion—the pelvic brain. What is a brain? A brain is an organ that receives sensation, reorganizes and emits emotion. A complete nervous system consists of a cell (ganglion a re-organizer), and conducting cord (nerve strand), and a peripheral apparatus (sense or collecting organs). The cervico-uterine ganglion consists of an aggregation of ganglion cells, and hence it is a brain. Since it is the largest collection of ganglion cells within the pelvis, it is the *pelvic brain.* The abdominal brain (ganglion celiacum) primarily dominates the tractus intestinalis. The pelvic brain primarily dominates the tractus genitalis. The genital tract, being located at the distal end of the body, at an extensive distance from the abdominal brain, requires an accompanying local, independent ruler—the pelvic brain. As it contains a less number of ganglion cells; therefore, the abdominal brain dominates the pelvic brain. In the same manner the automatic renal ganglia, having a less number of ganglion cells, is dominated by the abdominal brain, yet they rule like a State and govern their own territory. Likewise the abdominal brain dominates the tractus intestinalis, though the superior mesenteric ganglion is allowed to rule the rhythm of the enteron with the proximal half of the colon, and the inferior mesenteric ganglion is permitted to govern the rhythm of the fecal reservoir, or the distal half of the colon (one-half of the transverse colon, the left colon, sigmoid and rectum). Hence the abdominal brain is

e central potentate of visceral rhythm, ilsted by numerous subordinate, yet ctically independent rulers, stationed various distances.

n a certain sense the abdominal brain embles the pelvic brain, as the abdom- l brain is modified by the in- poration in it of a cranial nerve (the gus), while the pelvic brain has incor- flamed); the sympathetic should function- ate, perform its rhythm painless.

Scanzoni reports a woman paralyzed from the dorsal vertebræ distalward, who had a painless labor. Children may be expelled after the mother's death. The spinal nerves supplying the genitals trans- mit pain of the most acute and lancinat- ing character.



THE PELVIC BRAIN.

ig. 1 (By Byron Robinson). An illustration of the cervico-uterine ganglion or pelvic brain (1 and lt is composed of: (a) the hypogastric plexus (1), the lateral sacral ganglia (6 and 7), and many e strands from the II, III, and IV, sacral nerves. The pelvic brain was three-quarters of an inch , one-half inch wide, and one-sixth inch thick, in the subject from which it was dissected and rn; 3. rectum; 12, uterus; 5, bladder. It is a ganglion of giant power and majestic size.

ated in it the sacral (spinal) nerves. genitals are supplied with two kinds nerves, spinal (cervix, vagina and pu- dum) and sympathetic (corpus, fun- , oviduct and ovary). As regards the rus the spinal nerves supply the cer- and the sympathetic supply the cor- and fundus. The pain from the sym- hetic nerves is of a dull, aching, drag- g and sickening character (when in-

The spinal nerves supplying the geni- tals, in order of importance, are: (*a*) in- ternal pudic; (*b*), the third and fourth sacral; (*c*) pudendal; (*d*) ileo-inguinal; (*e*) genito-crural. The sympathetic nerve supplying the genitals, consists of (1) the great hypogastric plexus, which originates from the abdominal brain and the lateral lumbar chain. This great plexus passes from the abdominal brain along the aorta

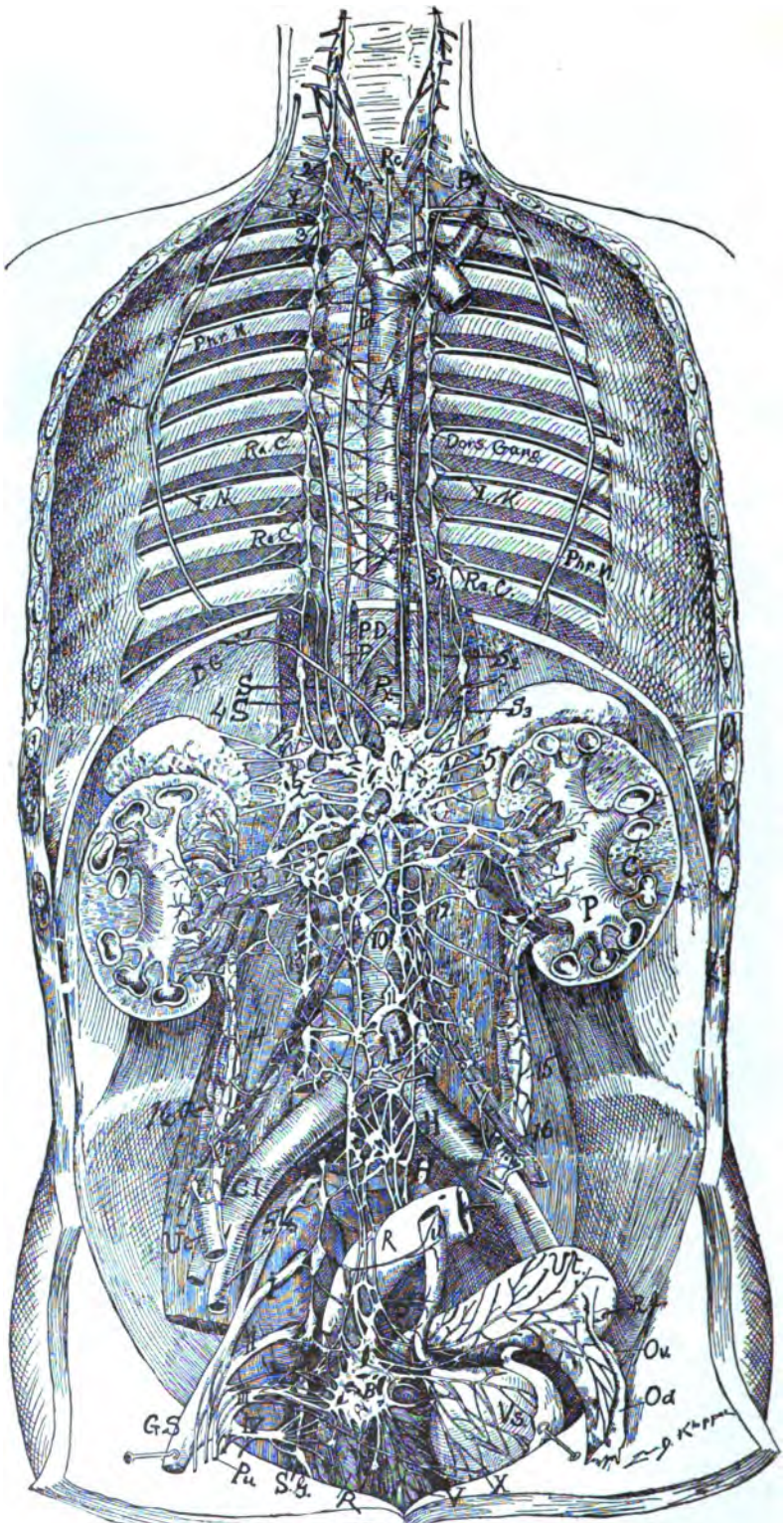


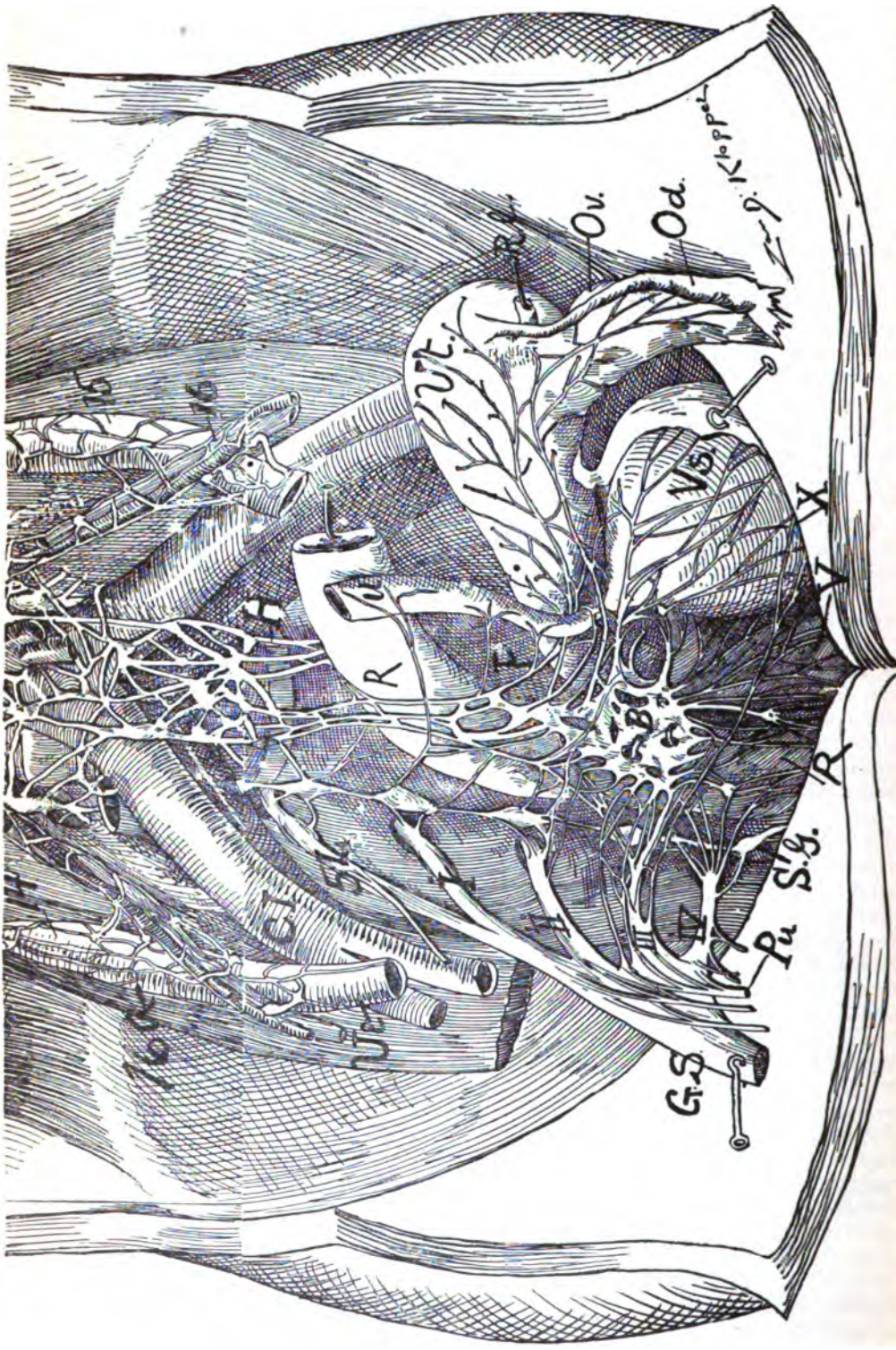
Fig. 2. An illustration of the sympathetic nerve with pelvic and abdominal brain. In this spe
the ureters (calyces, pelvis and ureter proper) were dilated to the dimensions of an index finge
channel of the tractus urinarius presenting no sphincters intact. This subject possessed a t
abdominal brain (1) as well as a well-marked pelvic brain (B). The ganglion hypogastricum (H)
marked. This illustration presents fairly well the abdominal sympathetic with their varied s
moses. The great ganglionic masses of the abdomen (1) and pelvis (B) are evident.

(aorta plexus) to its bifurcation at the sacral promontory, whence it forms a coalescence, or a kind of nerve disc, the hypogastric ganglion, which originates the two great hypogastric plexuses. They then divide and pass along the lateral walls of the rectum and vagina, many of the strands traversing between the blades of the ligamentum latum, and along the lateral borders of the uterus, to supply its corpus and fundus (the nerves of the uterus are best observed, according to my experience, by dissecting a six month's fetus which has lain in alcohol for some months). The peritoneum of the fetus is transparent, and the nerve ganglia are reddish—hence visible. Spare cadavers are also successfully employed in exposing the hypogastric plexus. The hypogastric plexus is distributed in the ligamentum latum in the form of a fan, the periphery of the fan being the lateral borders of the uterus and the distal border of the oviduct. At the junction of the cervix and vagina one finds irregularly-shaped nervous ganglia (pelvic brain). Trauma, shock on the hypogastric plexus, will kill in a few hours. I performed an autopsy on a woman with her first child, who had ventral hysteropexy performed on her four years previously, and in whom immediately after labor the uterus invaginated, killing her in about two and one-half hours from shock.

(2). The ovarian plexus passes practically from the abdominal brain, however, actually from the ganglion ovaricum, to the ovary along the vasa ovarica. It consists of nerve strands and ganglia. The hypogastric plexus sends strands to meet the strands from the ovarian plexus to supply the oviduct. An enormous mass of nerve tissue is found in the ovary. It is apparent that the sympathetic nerves supply the corpus and fundus, while the cervix is well supplied by the spinal from the second, third, and fourth sacral. That the uterus is supplied by sympathetic nerves and the cervix by spinal nerves is significant in practice. For example, the uterus (corpus and fundus) is always ready for an abortion, because it is always in rhythm. The cervix is never ready for an abortion because it is not in rhythm, being dominated by spinal nerves. Abortion is worse than labor, from lack of drainage and consequent infection. The uterus being dominated by the sympathetic nerve is a rhythmical organ, and always ready to expel its contents. Any one can prove that the pregnant uterus is in a state of constant rhythm by placing the hand on the abdomen of a pregnant woman.

The cervix being dominated by spinal nerves, is not rhythmical, it is sober and quiet; a moderator, a guard, a sentinel, a breakwater against which dash the troublous waves of uterine, rhythmical, agitation. I have observed these uterine rhythmical waves gradually increase in violence until the cervix was compelled to yield, by sudden dilatation, which means cervical paralysis (and, perhaps, laceration of nerves). In this sudden paralysis (patulousness) and rapid recovery lies the fatal infection story of many an abortion. When the rhythmical waves of the uterus become violent, disordered, and force the fetal ball with unnatural vigor against the quiet cervix, the latter soon yields. However, the dilatation of the cervix is so violent and sudden that it becomes paralyzed and remains patent, patulous, after the fetal ball has been forced through the cervix. It will require two to four days for the paralyzed cervix to recover and close its canal, but during that time the patent cervix serves as an open door through which infectious germs pass into the uterine cavity. After the germs have entered, the cervix recovers from its paralysis, and closes its canal with its natural vigor, which prevents free drainage, and the multiplying germs pass through the oviducts into the peritoneum. Hence, drainage which is ample in labor, its lack is the essential element of danger in abortion.

With a comprehensive view of the kinds of nerves (sympathetic and spinal) supplying the uterus and their function (rhythmical and non-rhythmical), the physician is better capable of administering successful treatment. The genitals possess the largest nerve supply among viscera and, therefore, we may expect the greatest amount of neurosis from pathologic conditions arising from them. The essential pathology of the sympathetic nerve in health and disease is through reflex action. The reflex action from the


Ov.
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genitals may disturb any one or all other viscera, as to function (peristalsis, absorption and secretion) or structure. The reflex action may compromise circulation (congestion or anemia), as regards the blood or lymph, and, consequently, assimilation.

When an adult female is suffering from reflex troubles the cause is generally found in the tractus genitalis. Reflex action travels on definite nerve tracts, and is reorganized in definite nerve ganglia (centers).

Nerve forces travel with most facility on lines of least resistance, which will be nerve plexuses containing the greatest number of nerve strands and ganglia; therefore, genital reflexes will pass first directly over the hypogastric plexus to the abdominal brain, whence reorganization will emit it next to the stomach, for the gastric plexus has a large number of nerve strands and ganglia. Consequently, women in reflex disturbances complain first of stomach troubles. The pelvic brain involves matters important to the science and practice of medicine. The dynamics of obstetrics is involved in the pelvic brain—the cervico-uterine ganglion. It must explain the normal and anomalous pains (peristalsis) of the uterus. The pelvic brain must explain the initiation and parturition (labor), its maintenance (continuous rhythm), and cessation. For the science of uterine peristalis, its beginning, continuing and ending, the pelvic brain (and the automatic menstrual ganglia) must be studied. It is time we realize that the genital circulation, in its different phases of pueritas (quiescent), pubertas (congestion), menstruation (engorgement), gestation (engorgement), climacterium (irregular congestion), and senescence (quiescence, anemia, atrophy).

By a more perfect understanding of the nervous system of the tractus genitalis more light may be shed on such diseases as eclampsia, mania and other diseases emanating from the genitals. A knowledge of the nervous system of the genital tract is not valuable for the science of obstetrics and gynecology alone, but it is important for successful practice. For long centuries though the stately, periodic, peristalsis "labor pains" had excited the wonder of all observers, yet until the last half century little of practical value had been established as to the nerves of the genitals. The work of Franz Kilan (1800-1863) on "The Nerves of the Uterus," issued in 1851, was the foundation of almost all subsequent labors. Kilan was an obstetrician and attempted, in a philosophical method, to solve the problem which nerves and from what source is the uterus influenced. From Kilan's well-known investigations modern books have copied, with and without acknowledgment.

Toward the end of gestation the cervix becomes more and more effaced. This anatomic fact exposes the pelvic brain to trauma (pressure) from the child, especially its head, which gradually excites, or irritates, the pelvic brain, arousing uterine peristalsis, which is finally increased to expulsion, or labor pains.

100 State Street.

[Written for the MEDICAL BRIEF.]

Coma and Delirium in Continued Fevers.

BY W. W. RICHMOND, M. D.,
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For the relief of coma and delirium in continued fevers, nothing can equal cold applications to the head, which is always found extremely hot.

The ice cap, water coil or ice water douche should be freely used.

A convenient mode of using cold water on the head is by means of a towel tacked across the ends of two upright pieces six or eight inches wide, and same height of bed. The towel is stretched tightly by means of a central piece as a fulcrum, and bringing the distal ends together.

These ends are held by a strip tacked across them. This should be placed in a tub, and the patient turned across the bed, with the head placed upon the rack, and the bowl of ice water, or cold well water, placed on the central piece below the towel, and the nurse pours cold water on the head, which comes in contact with its entire surface, cooling all parts alike at the same time, to the great relief and comfort of the patient.

[Written for the MEDICAL BRIEF.]

"Active Air."

BY JAMES C. ROSS, M. D.,
Colorado Springs, Colorado.

Is consumption and tuberculosis one and the same thing? If not, what constitutes consumption and what tuberculosis? We have fallen into the habit of using the two terms synonymously, and, may be, recklessly.

The term consumption has been used for centuries to designate a particular form of wasting disease, but in recent years this term has been almost entirely abandoned by the profession, in favor of the term tuberculosis. Inasmuch as we almost invariably associate the term tuberculosis in our minds with germs, and inasmuch as germs may not be the important factor in the conditions which the profession has been trying so long to overcome, and in view of the further fact that the tubercle bacillus is beginning to hold a doubtful position in many scientific quarters, if called upon, I would cast my vote in favor of the old name, consumption.

I shall endeavor to show that the tubercle bacillus does not cause consumption, does not enter into it as a primary factor, and if a factor at any stage of consumption, it enters only as a complication that may or may not add anything to the dangerous consequence of the disease.

In supporting this theory, I shall present many of my arguments interrogatively, because many points are yet in doubt, and depend much upon circumstantial evidence rather than positive proof.

In showing preferences for the term consumption, my aim is not so much to draw fine distinctions of nomenclature as it is to question the significance of the tubercle bacillus and the basis for the bacillophobia that started two decades ago, and now has the world's people in a state of panic.

The tubercle bacillus is admittedly a vegetable organism and not a natural habitant of the normal animal, but in spite of this fact it has been condemned as an aggressor and death dealer mainly on circumstantial evidence, which ha been shown to be more or less unreliable It is true that it is generally found pres ent at some stage, in the course of con sumption, but is there any positive evi dence that it is in any way the cause The scientific world has labored for year to find positive proof of its guilt, but ha anyone been able to show that it is destroyer of living tissue, or contribute in any way towards the death of th consumptive?

Is it not true that much evidence i being developed in support of its inno cence; evidence to show that it is saprophytic organism, that it prefer dead tissue; in fact, cannot subsist o living tissue?

Is it not possible that the fact tha consumption is transmissible from ma to the guinea pig by inoculation, ha had much to do with the deep-rooted conviction that the tubercle bacillus i the primary cause of consumption, an is the all-important factor in the destruc tion of the life of the consumptive. I so, is the evidence reliable? Does Natur produce consumption in this way?

When the immortal Koch announced his discovery of the tubercle bacillus the world naturally jumped at the con clusion that the problem of consumption was more than half solved. That th germ being known, the antitoxin prin ciple that worked so well in other germ diseases would, when the same principl was applied, cure consumption. But di it? Has not this principle steadily an surely maintained when applied in othe germ diseases? Why, then, should it fai in this? If consumption is a germ disease does it not look as if Dr. Koch failed t isolate and identify the right germ?

The serum therapy proves up so satis factorily in many of the other germ diseases, why should it so ignominiously fail in this? If consumption is a germ disease, and the antitoxin principle fail when applied to the tubercle bacillus which it certainly does, then why no try it on some of the other germs tha are found to be associated with thi disease? If the right germ has not bee identified, why not extend our research Doubt cast upon Dr. Koch's deduction reflects no discredit upon the world'

enowned bacteriologist, whose success as been so phenomenal in germ diseases. e certainly deserves the undying grati-de of the world, even though he failed ascertain the cause of consumption. he profession, after trying to confirm s theory since 1882, has failed, and ow finds itself in a wilderness of un-rtainty. There is something wrong. ave we been following a delusion? ith all our knowledge of the tubercle cillus, the profession, as a whole, are t little better prepared to cope with nsumption than they were in the days Hippocrates and Esculapius.

Assuming that we are at the end of our sources in our efforts to fix the re-onsibility upon the tubercle bacillus as ing the cause of consumption, and ad-itting, as we must, that all efforts to re consumption by treating it as a rm disease due to the bacillus tuber-losis have been disappointing, and in ew of the further fact that consumption n exist and be real consumption with-t anyone being able to detect the esence of the tubercle bacillus, may we t wisely conclude that, owing to some asting process, the germs are attracted erely to feed upon the waste products, hich, wasting, may depend upon faulty trition, from a lack of air, or proper ment, or both. Would it not be more tional to treat the cause rather than e effect?

Your answer to this might be, that all ese conditions constitute a combination factors so closely associated that we nnot separate them and treat consump-n successfully. My reply would be at we are doing it. Actual experiments ove that consumption can be treated ccessfully without paying any of our spects to germs. Open air life for the nsumptive, combined with suitable ali-ent, when properly carried out, is at-nded with far greater success than any rmicidal methods, and this, too, right the midst of billions of germs, includ-g myriads of the dreaded tubercle cilli.

By the open air method of treating nsumption, we are taught an important sson. It indicates to us that the germ not the all-important factor which we ve been led to believe, if, indeed, it is a factor at all worthy of consideration in our efforts to suppress consumption. It, together with other things, teaches us that the cause precedes the germ in the consumptive by some pathological condition which we may properly call consumption. It is in my mind doubtful if consumption can at any stage of the disease be called tuberculosis, if tuberculosis must be ascribed to the destructive powers of the tubercle bacillus.

Your argument might be that the tubercle bacillus in itself may not be so destructive, but the well-known pyogenic germs so commonly associated with it, constituting mixed infection, are destructive to life.

My reply would be, the question, in what way is the tubercle bacillus responsible for the presence of the mixed infection? Is it not more than probable that the mixed infection comes also of their own accord to feed upon the waste products, and that they are not there by the invitation of the tubercle bacillus; that all come much as vultures are attracted to carrion?

I know that you are unprepared to share with me in my skepticism. It has been a part of your education and daily life to show your deference to the tubercle bacillus. I am myself loath to admit that my hobby is slowly but surely passing away. I regret to be forced to admit that I have been teaching false doctrines, because it is a beautiful theory. It seems so real, so plausible, but in view of these facts is it not about time that we should stop and ask ourselves the question, is the tubercle bacillus the deadly monster it has been represented to be? If it is, then can we free the atmosphere of it and prevent contamination, and thereby save our susceptible people from its ravages? I would say no, a thousand times no. Its presence has been shown to be broadcast throughout the land in all parts of the world, and it is so light when dry as to be carried upon the wind, which makes such undertaking as impossible as it would be to stop the wind. As long as vegetation grows and the winds blow, we shall be contaminated with this organism.

In my judgment, in studying the conditions which make consumption possible,

we must begin at the blood, inasmuch as the blood is the basis of soil conditions. The cells that go to make up the body are wholly concerned in the elements that compose the blood.

Our observations have taught us that conditions under which persons receive but little pure air are the most subject to consumption and that open air life affords the best chances of escape.

We are told by the tubercle bacillophobists that the tubercle bacillus must find suitable soil, that many persons possess natural resistance to it. What is suitable soil but another name for consumption? Some say that suitable soil consists in lowered vitality, depression of the system, malnutrition, dyscrasia, or anything that lowers the vital powers. It is admitted that thousands of people have lowered vitality, depression of the system, malnutrition, dyscrasia, and other things that lower the vital powers, who do not have tuberculosis. In fact, the great majority of them do not. Then, of what does suitable soil consist? Can one be starved into tuberculosis? This is lowered vitality. Can one be bled into tuberculosis? This is depression. Do dyspeptics always have tuberculosis? Here is malnutrition. Will loss of sleep cause tuberculosis? In this the vital powers are lowered. It is seen that the term suitable soil comprehends more than these.

Venous blood comes in contact with atmosphere in the lungs and is changed to arterial. It is here in the lungs that the respiratory organic impurities are exchanged for atmosphere, and the blood rendered pure for nourishing the body.

Again, to every student of physiology it is known that the food we eat is not transformed into blood corpuscles until it meets, in the lungs, the air we breathe; if, then, we do not take in enough air, or what we do take in is impure, the blood will be imperfect and in proportion unfit to nourish, strengthen and vivify the body.

Thus it is that faulty or imperfect elimination of the respiratory organic impurities produces an altered condition of the blood, altered in that venous blood is not properly changed to arterial; altered in that the food we eat is not properly transformed into blood puscles. This blood induces a cons tional weakness, which we call pretu cular or soil or consumption, and i prepared in no other way.

There are many reasons why such exchange does not or can not take p to the required degree. First, the breathed may be vitiated. Second, respiratory organs may be incapabl delivering the necessary amount of ai the blood, because of anatomical obst tions, either congenital or acquired. required obstructions may consist of lapsed air-cells from non-use or f mucus coating, or thickening from cat of the lining membranes, or from a v of knowledge of how to breathe prop All of which, and more, contribute to suspension of atmospheric influence.

It is not only important that the b be well aerated, but it is equally im tant that it be well distributed to parts of the body, that no part may allowed to fall into decay and in germs.

The mere turning of a consumptiv the consumptively inclined out into open air does not insure the neces amount of aeration. Greater ener must be employed towards assisting ture in its restorative efforts. If the sumptive is incapable of taking suffic air, even when the opportunity is forded, why not try to render him n capable? If by inheritance, habit disease, his lungs are obstructed and capable of admitting as much air as blood requires to keep it in normal dition, or restore it to a normal condi when diseased, then why not use m of removing the obstruction to resp tion. If air is good, and air is wha needed, why not give the consump more air? If the air is not active eno as it is in its natural state, to perf the requirements demanded of it by blood, then why not make the air n active? Air as provided by nature is doubtedly active enough to serve the pose under ordinary normal conditi but under abnormal conditions, woul not serve a better purpose if it v made more active?

I cannot do my subject justice wit touching upon some of the methods

loyed by me in the management of consumption, which have been instrumental n causing me to arrive at the foregoing onclusions.

It has been my constant aim to give ny consumptives the advantages of an bundance of fresh air and all the sunhine they could get, and remove obtructions to respiration, if possible. My xperience with "active air" has more fully emonstrated to me the importance of eration in the treatment of consumption. Vhen I say "active air," I mean air iat has been subjected to the action of high potential current of electricity and ien passed through volatile oils of the erpine group to relieve it of its irritatng effects. When such oils as eucalypis, pine needles and cajaput are treated ith air that has been rendered active y means of a silent discharge of elecicity, a combination is formed which a terpine peroxide compound wherein ie electrofied air is relieved of its drasc properties and the patient is enabled o inhale vast quantities without unward effects. This inhalant increases ie red corpuscles and hemaglobin of the od and renders oxidation more comete. It has a stimulating influence upon ie vaso-motor system, which, in turn, ouses all the organs of the body to a etter performance of their functions. he blood is better distributed; the apetite is increased; sleep is better and igestion and assimilation are markedly nproved.

Air rendered active in this way has a owerful influence over blood conditions, nd, consequently, over the consumption rocess. Active air not only increases ie red corpuscles, percentage of hemolobin and specific gravity of the blood, nt has a power even greater than that ossessed by an absolutely dry atmoshere, in that exhalation of organic imurities is made easier and the blood iade freer from these elements which, retained and reabsorbed by the tissues, ould contribute most extensively to hose constantly recurring unfavorable ymptoms of consumption.

I speak of the action of "active air" n the consumptive, for the reason that ny practice is largely confined to that roup of invalids, but its action in respiratory troubles is less positive than it is in certain forms of nervous troubles, many conditions of anemia, skin diseases, tetanus and syphilis. Its specific action in the latter is the most remarkable in its field of application. Not knowing the cause of syphilis I cannot well define its action, but I know to a positive certainty that it does cure it, and accomplishes the cure in the most satisfactory manner to both the physician and patient.

I am of the opinion that a careful study of hematology will disclose the fact that many widely different diseases primarily find their first divergence in disturbed blood conditions. This statement is not without justification, in view of the many phenomenal reports from the users of active air in reference to its action in scarlet fever, diphtheria, typhoid fever, malaria, etc.

If I were asked what I regard as the best course to pursue in the treatment of consumption, I would say, "Stop fighting germs" and give your patient a life in the open air; remove as far as possible obstructions to respiration, expand the lungs by calisthenics, exercise the muscles, or rest them according to the physical condition of the patient; give good and wholesome food rich in fat. I would use active air from the earliest possible moment after the patient comes under your direction. This treatment alone is an unquestioned and absolute specific in the first and second stages of consumption. In the advanced stage I would use in connection with active air the subcutaneous injection of oils in sufficient amount to cause the weighing scales to show each week an increase in weight, all of which go to serve the conditions best which we are called upon to meet.

[Written for the MEDICAL BRIEF.]

"Complications" of Influenza.

BY J. D. HARRIGAN, M. D.,
New York City.

No word, in the opinion of the author, tends more to complicate the study of the etiology of influenza and other epidemic diseases than the word "complications."

It throws one entirely off the scent.

We hear of influenza "complicated" by congestion of the lungs, congestion of the kidneys, liver, spleen, brain, spinal cord, etc.

These conditions have no right to be regarded as complications, since they are part and parcel of the process transpiring, known to us as influenza.

The "congestion of the lungs," the "pleurisies," the "pneumonias," the "meningitis," and other so-called phenomena, are simply manifestations of the many and complex chemical and electro-chemical processes transpiring, and, grouped together, are known to us as influenza.

We can speak correctly of complications only when an entirely distinct and different disease occurs contemporaneously with a prior complaint.

Thus, for instance, a patient suffering from influenza, with severe cerebral localization of the disease, might possibly get out of bed in his delirium and, falling on the floor, break a leg.

This certainly might be justly called a complication of his pre-existing ailment.

Similarly he might receive a burn or scald, or be wounded, and septicemia develop.

All of these would be complications.

But to speak of natural incidents of the disease as complications is erroneous and misleading.

It would be absurd to say of a great conflagration raging in New York, for instance, that the fire was complicated by the burning of the Metropolitan Opera House, or that particularly striking feature of the city known as the "Flatiron."

These would be only incidents of the general process going on.

Even if a particularly tremendous outburst of flame and smoke should suddenly attract our attention to some one place attacked by the flames, accompanied, possibly, by severe explosions, we would simply take for granted that a noteworthy incident of the conflagration was occurring, caused by the involvement of, perhaps, some great chemical warehouse.

A genuine complication of the fire would ensue if, for instance, the water supply should be suddenly cut off, owing, perchance, to the bursting of the water main.

So we might cite many instances genuine complications as opposed to t that are really only apparent ones.

How can a clear, correct and thoro knowledge of the etiology of disease had if we are unable to read aright visible, outward manifestations of s disease and, not only that, but also t connections with each other and, wise, the peculiar significance that n attach to them when viewed separat together, and from various sides.

Is it not perfectly apparent that i patient suffering, for instance, from s ilis, we would expect to find syphi lesions in many parts of the body?

Hence we would expect to speak syphilitic iritis, syphilitic laryng syphilitic periostitis, etc.

We would not say that the patient syphilis complicated by pericstitis, o laryngitis, iritis, etc.

And yet this is exactly what is with regard to influenza and other demic diseases.

We can cite instances almost wit number of this misconception of the significance of the various manifestat of these diseases.

As an example might be mentioned following, taken from Prof. Zuelzer's on influenza in Ziemsen's Cyclope *"Uncomplicated* Forms of Influenza dom Lead to Death.

"As essentially belonging to the dis we find only a more or less consider hyperemia and catarrhal swelling of Schneiderian membrane, as well as of mucous membranes of the phar larynx, trachea, and bronchi. The cat is often limited to the larger bronchi, in other cases it extends even into t finest ramifications, which sometimes be filled with clear, thin, frothy mu and sometimes with thick, viscid, op masses. Catarrhal and croupous p monias, or pseudo-membraneous capi bronchitis, etc., are included in the *plications* which generally bring abo fatal result. In the stomach, too, more rarely in the intestinal mu membrane, we find more or less exte hyperemia."

According to this statement one w be led to consider influenza as a m local affection, involving the Schneide

nembrane, pharynx, larynx, trachea, and ronchi.

Involvement of any other organs or tructures must be regarded as an onset f new diseases—for that is exactly what he word "complications" would indicate —if we were to take this statement liter- lly. Local affections would supervene pon local affections. But is this the ase? We know that it is not.

Zuelzer himself in a paragraph imme- iately preceding the above, shows that t is not.

He says: "The influenza is, as Biermer as properly described it, the sum of a eries of catarrhal manifestations which ave developed under common epidemic nfluences.

"* * * the sudden onset and the ften critical termination of the disease, ts general seizure, the severe nervous ymptoms, as well as the decided disposi- ion to cough which invades the organs f respiration, with a proportionately light increase of the secretion of the nucous membrane, all these are in favor f a general agent which rapidly affects he organism at large."

If this is the case, as all certainly must cknowledge is surely the case, judging rom the history of the disease and its ymptoms, then why detract from its ex- raordinary significance and "complicate" natters by terming any of its manifesta- ions "complications?"

No one surely would term any of the nanifestations of syphilis "complications" f that disease.

We speak of these localizations of this ffection as, *e. g.*, syphilitic iritis, syphil- tic periostitis, etc., as mentioned before.

Similarly, therefore, we should, to be trictly accurate, speak of influenzic pneu- nonia, influenzic gastritis, influenzic men- ngitis, etc.

Otherwise we would be influenced to hink that we were dealing with several listinct, separate diseases, and not with ne general disease, with innumerable ocal manifestations.

If we are dealing with one disease hav- ng "one general agent affecting the or- ganism-at-large," the task of locating and naming this agent becomes easier by con- sidering this one disease as one disease with various localizations, than it would be by considering a confusing array of "complications."

This, naturally, would bring up the question as to what way this general agent was distributed to the various parts of the body, and inevitably compel us to seek in the two grand trunk systems of supply to the tissues of the body, *viz.*, the nervous system and the circulatory system, for its place of development.

To either of these great systems, or to both of them, must we look for this "general agent," as mentioned by Zuelzer.

It might be said, in passing, that the extraordinary neglect of the nervous system as an important factor in the causation of diseases of an epidemic nature, has caused no end of surprise to the author.

How any one can see the various wonderful operations in electro-chemistry going on at all times around us in Nature's laboratory, with a reduplication to a very limited extent of some of these operations by man—more particularly in electro-chemical crystallizations—and not realize most deeply, and with far more than a passing interest, how intimately associated with all the functions and operations of the human body electro-chemical action is, is a matter for wonder.

It would seem only necessary to recall to mind some of the phenomena of the neuroses that have had as a result of their potency a complete change of anatomical structure in some one or other part of the body, to appreciate the fact that these results can be reduplicated to an incredible extent and to, if you might be so pleased to call it, an exaggerated extent.

Thus, we know that a sudden shock to the nervous system has had the effect of blanching a person's hair in a single night; a sudden fit of anger in a child has produced a crop of "shingles;" the sudden shock to the nervous system, caused by some passing emotion of pleasure, of anger, etc., has caused the face to become suffused, a flush, or blush, being the result; in other words, a congestion has resulted.

Dozens of instances might be cited similar to these, but they are unnecessary.

The above suffice to serve as an example. Where these so-called phenomena are possible, other phenomena on a much

more extensive and grander scale would seem to me to suggest themselves. Particularly would this be the case if, besides taking into consideration the nervous system, with its electro-chemical possibilities, as a factor in the matter, we should conjoin with it other chemical and electro-chemical possibilities in the shape of the food and fuel supply furnished by the circulatory sytsem.

The processes of peripheral congestions (as likewise of central ones) would simply be multiplied and remultiplied and extended, not only as regards area and locality, but likewise as regards intensity, and we would have as but steps from the congestions resulting inflammations, exudations—pseudo-membraneous and membraneous—disturbances of function of many parts of the body, with their greatest intensity localized at the point of least resistance; this intensity being modified in turn by several causes, not the least of which would be the quantity as well as the nature also, of the chemical constituents making up the disturbing factors in the matter.

By eliminating from our minds the idea that the "pneumonias," the "pleurisies," the "cerebro-spinal meningitises," the "nephritic," "hepatic," "enteric," "splenic," "cardiac," etc., manifestations are "complications," and simply considering them at their proper valuation as part and parcel of the disease we should certainly be able to clear the way for a much better understanding of the intricate operations, having their bases of chemical and electro-chemical activity in the nerve and blood supply in the animal economy, and which act as factors in bringing about that condition of the body which is a departure from what is known as "health," and has been known from time immemorial as "disease."

If influenza is, as Biermer says, "the sum of a series of catarrhal manifestations * * * due," as Zuelzer states it, "to a general agent which rapidly affects the organism at large," who is there who will place a boundary line for these manifestations?

Is it simply influenza when the Schneiderian membrane, as likewise the mucous membranes of the pharynx, larynx, trachea and bronchi are affected, a
some other disease when the "gene
agent," mentioned above, escapes the
limits and wanders up and down, and
and out through the rest of the system?

Is it simply influenza when the patie
gets better, and some other disease wh
the patient dies?

Has the "quantity" of influenzic ma
rial—the "general agent" mention
above—nothing to do with the extensi
as likewise with the intensity of the
tarrhal manifestations, with nothing
prevent the latter from proceedi
through all gradations of inflammation

Shorn of its hydra-headed, mystifyi
"complications," influenza is not such
difficult matter to comprehend.

Due to a "general agent which rapid
affects the organism at large," affecti
primarily, the blood and nerve supply,
ing wherever these go, modified in ma
ways by peculiarities of the individu
(chemical and electro-chemical), as, al
by peculiarities of chemical surroundin
generally termed hygienic, or sanitary,
culiarities of food and drink; also che
ical peculiarities of climate, chemical a
electro-chemical once more, it goes wi
out saying, almost, that it must be diff
ent under different conditions, must
different in different parts of the wor
must be different in different individua
etc.

Add to this its possibility of locali
tion of greatest intensity in any one,
several parts of the body, and it mu
certainly strike one with a force irresi
ible that certain of the epidemic diseas
that go hand in hand with influenza, a
that devastate the earth at various tim
posing under various titles of disea
having as their basis a ridiculous a
misleading arbitrariness of classificati
totally unjustified, are simply manifes
tions of the influenzic principle, or pr
ciples, at work.

Is this not possible?

Is it not, by all manner of means,
more scientific to claim a gradation
diseases, basing our deductions on t
known gradations in symptoms in diff
ent individuals, in different epidemics,
different localities, in different surrou
ings, etc., than to lay down a strict li
of demarcation between them, labeli

hem green, red, blue, yellow, or black, as he case might be?

In support of the gradation theory of isease it should certainly strike us very orcibly that never in the whole history f epidemics has one distinct type of dis-ase appeared alone to afflict the globe.

The epidemics have been one long ser-s of "dissolving views" of various shades nd intensities of disease.

Delegate the so-called "complications" o their proper, subordinate positions in he economy, and bring into greater prom-nence this all-pervading "general agent hich rapidly affects the organism at rge," and whose limitations no one can y are definitely fixed, and how easy ecomes the solutions of the coincidental ccurrences of epidemic diseases.

Consider, for a moment, that this "gen-ral agent," or what appears to the author ore probable, combination of "general gents," diffuses through the system with rapidity and an intensity far greater an the "general agent" of syphilis, and, ot unlike the latter disease, locating it-elf here, there and everywhere, and we an very readily see where the so-called complications" belong.

Then would the terms appear more ap-ropriate as, for example, "influenza with leurisy predominating," "influenza with neumonia predominating;" or, better till, might be "pleuritic influenza," or pneumonic influenza," or "hepatic-ic-eric-choleraic influenza," as the various anifestations would predominate.

It would be easy enough to devise a roper nomenclature for the varying hases of the disease.

The main principle involved is to keep orever foremost in our minds the influ-nzic agent of the trouble, and, just as we now that the syphilitic lesions, under hatsoever guise they may appear, are rst, last and all the time syphilis, so must ve appreciate the fact that the influenzic esions are first, last and all the time in-luenza.

And just as sure as the influenzic prin-iple is given its proper position of prom-nence, and the train of influenzic lesions roperly relegated to less prominent posi-ions than they now hold as "complica-ions" will, I have no doubt, the list of nystifying companions to the dread afflic-tion be suddenly shortened. I would state that in the MEDICAL BRIEF for February, 1904, under the title of "The Etiology of Influenza," to which I would respectfully refer the reader, has been set forth the outline of a theory that to my mind explains not only the origin of this disease, but elucidates also the mysteries of its "complications."

668 Lexington Avenue.

[Written for the MEDICAL BRIEF.]

The Treatment of a Common Head Cold.

BY F. P. ATKINSON, M. D.,
Bexhill-on-Sea, England.

A cold in the head is generally considered such a very trifling affair that little or no attention is paid to it, but every now and then it is clearly shown "how great a matter a little fire kindleth," more especially amongst the very young and old. In both these stages of life it is not so very uncommon to see an extension of mischief, and a development of either bronchitis or pneumonia, and yet if the head cold be properly and expeditiously dealt with it may be completely stopped in the course of a few hours. Thirty drops of sweet spirits of nitre and thirty drops of sal volatile in an ounce of water, repeated in two hours, and then every four hours, will rarely fail to accomplish the object in view, in about six or eight hours. When the discharge becomes thick, a snuff composed of one grain of cocaine, two grams of menthol and one hundred grams of boric acid is particularly useful.

When the cold has already run down into the trachea, as shown by the tickling of the throat whenever a deep breath is taken, then the spirits of nitre and sal volatile are utterly useless, but a mixture consisting of two drachms of the solution of acetate of ammonia and ten drops of sweet spirits of nitre in an ounce of water will rapidly give the required relief.

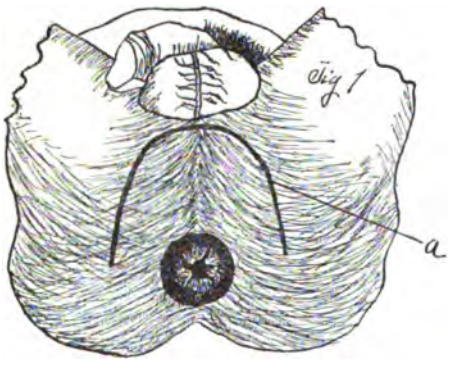
Enclosed find one dollar for renewal to MEDICAL BRIEF for 1905. It is well worth the money. We like 'em.—F. A. BOSWELL, M. D., Elmore, Ala.

[Written for the MEDICAL BRIEF.]

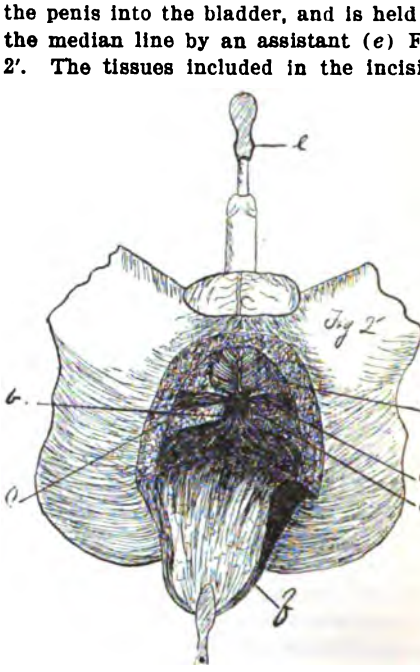
Technic of Perineal Prostatectomy as Used in Thirty Cases.

BY M. R. BARKER, M. S., M. D.,
Chicago, Ill.

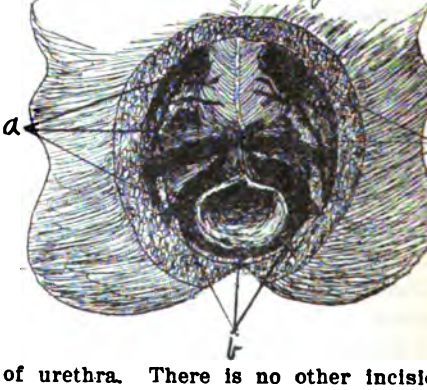
Perhaps there is no other operation wherein the surgeon is so generally solicitous of maintaining the vital forces of his patients, during the operation, as in prostatectomy. The reason for this is obvious: These patients have all passed the zenith of their physical endurance and, many of them, by reason of great age, combined with feebleness, due to their disability, are hazardous subjects, to say the least, for major surgical work. Hence, different surgeons follow different methods for doing the work, all of which are similar, and yet all different in detail, each surgeon using the method which, in his experience, best meets the demands of the operation.



My experience has taught me that there are three essentials to be attained in each operation, if we would conserve, to the uttermost, our patient's stock of vitality: Short operation, minimum loss of blood, and least possible traumatism. I have been able to accomplish these best by the use of the inverted U incision. This incision, or some modification of it, has been used for different perineal operations for more than a thousand years, and its usefulness should be pretty well established. The incision commences about one-third of the way from the tuberosity of the ischium to the margin of the anus, and is carried up over the bulb of the urethra, and around to a corresponding point to that of starting. Fig. 1 (*a*). It includes the integument, superficial fascia, and t perineal fat. Before the incision is ma however, a grooved staff is passed throu the penis into the bladder, and is held the median line by an assistant (*e*) F 2′. The tissues included in the incisi

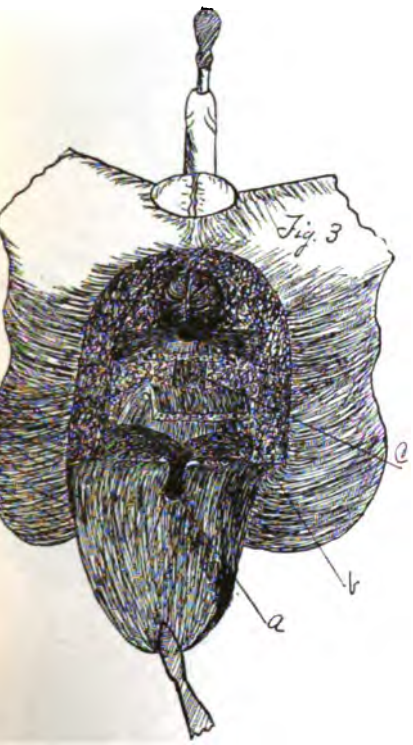


are now carefully reflected, (*f*) Fig. which reveals the following structure (*a*) Fig. 2′, central tendon of the pe neum; (*b*) Fig. 2′, anterior fibers of ext nal sphincter ani; (*c c*) Fig. 2′, tra versus perinei muscles; (*d*) Fig. 2′, bu

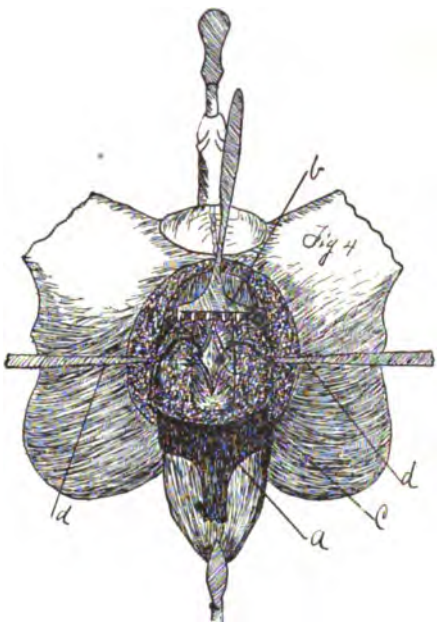


of urethra. There is no other incisi which brings the tissues, with which must deal, so plainly into view, and whi reveals every step of the operation so we If we deviate from the median line, a cut one of the transverse perinei muscl

e will also cut one of the main branches
f the internal pudic artery, the course
f which lies along this muscle. Hence,
hile we must advance our work and get
rough these tissues, it is best to avoid
ie hemorrhage which the above course
ould entail. We, therefore, avoid the
teral incision. The blood and nerve
pply of the external sphincter ani enter
at the side of the rectum, hence this
hincter can be cut, close to its insertion
to the central tendon, without hemor-
age or injury to the blood and nerve
pply of the sphincter. This, then, is

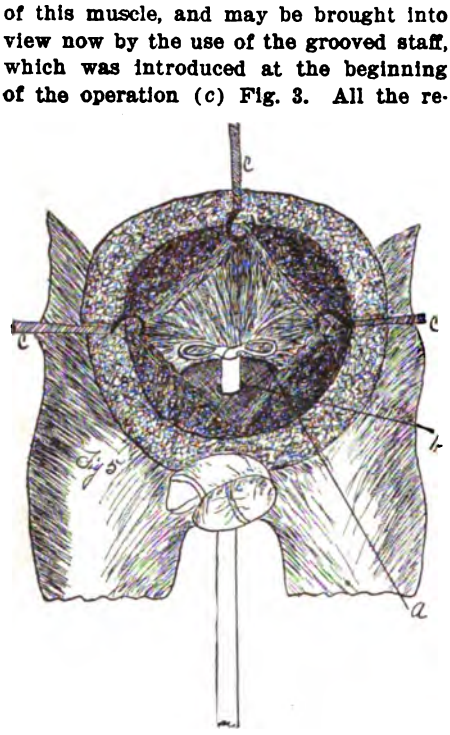


ne, and the muscle reflected (*a*) Fig. 3,
t by so doing the sphincter is rendered.
a time, inefficient, unless restored,
nce the last step in the operation, just
fore putting in the drainage: This
hincter is brought back and stitched to
e central tendon. Cutting this sphinc-
allows the rectum to recede, increas-
g the room for operating and diminish-
g the danger of injury to the rectum.
Fig. 2″, shows the incision carried back
yond the end of the rectum, demon-
rating the external sphincter ani. This
hincter originates at the coccyx. Its
fibers separate and pass on each side of the rectum (*b*), Fig. 2″, and are inserted into the central tendon of the perineum. This anatomical arrangement shows what would result from cutting this muscle, without restoring it. This cut also shows the relation of the rectum to the operative field, and the location of the internal pudic arteries (*a a*), Fig. 2″, the principal blood supply of the perineum, and the arteries with which we are most concerned in this operation. The incision in Fig. 2″ is never used as the operative incision, but is used here to illustrate more fully the relation of the structures with which we must deal in doing this work.

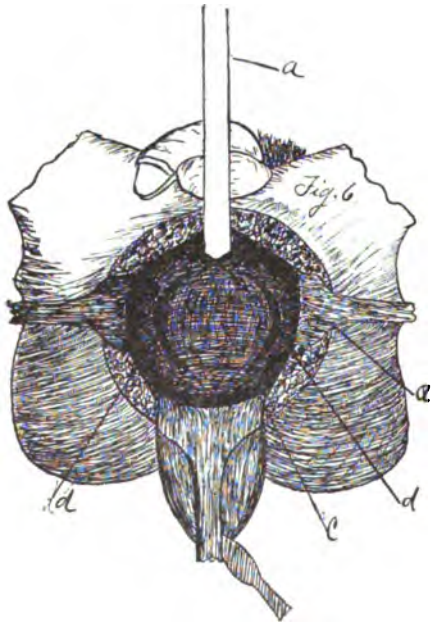


After reflecting the cut fibers of the sphincter ani, and continuing our advance by blunt dissection, we come to the anterior fibers of the levator ani muscle, which passes from the posterior portion of the prostate, obliquely forward, to be inserted into the central tendon. The rectum is attached to this muscle for a short distance anterior to the prostate. This muscle is sometimes known as the recto-urethralis, and again as the levator prostate. The finger is hooked behind this muscle, its fibers drawn forward, cut and reflected (*b*) Fig. 3. This allows the rectum to recede still further, and increases still more the room for operating.

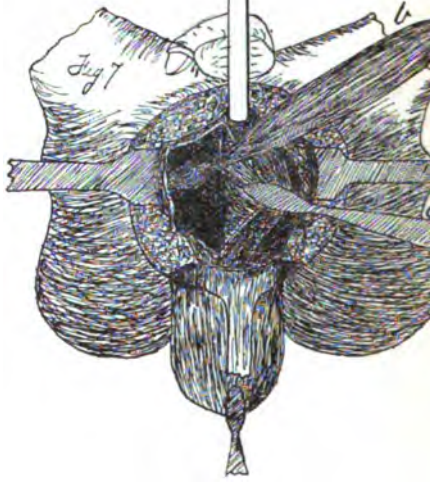
The membranous urethra lies just back of this muscle, and may be brought into view now by the use of the grooved staff, which was introduced at the beginning of the operation (*c*) Fig. 3. All the re-



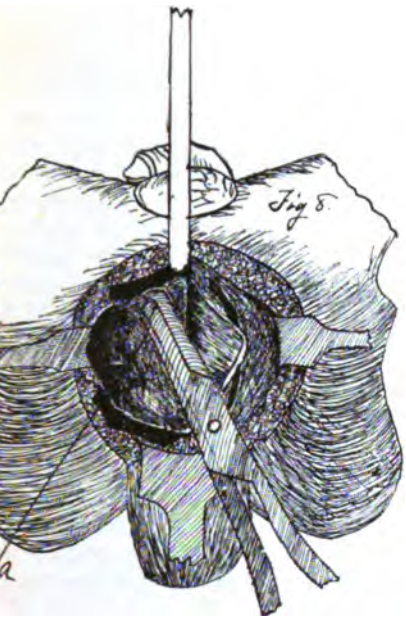
flected structures are now retracted, posteriorly (*a*) Fig. 4. The tissues attached to the central tendon are drawn forward by means of a sharp retractor (*b*) Fig. 4, bringing the membranous urethra into



the operative field. This is now incise on the grooved staff, exactly in the m dian line, and its edges separated hooks (*d d*), Fig. 4. The grooved staff now withdrawn, leaving the opening urethra (*c*), Fig. 4. Through this ope ing our tractor is passed into the bladd closed. The tractor is now opened (*a* Fig. 5, and lies above the prostate (*b* Fig. 5. (The bladder wall is shown this cut incised, and its cut edges hook apart (*c c c*), showing the position of t tractor in it. It does not illustrate a st in the operation). The sharp edges of t blades of the tractor, shown in Fig. 5, a in contact with the bladder wall, whi intervenes between the tractor and t prostate; hence, traction is not mad with the instrument in this position,



the diseased bladder wall would be i jured, many times, if this were done. T tractor is now changed to a lever by e vating its end and bringing its sha against the pubes (*a*), Fig. 6, which b comes the fulcrum of the lever, and t prostate the body to be moved. Th maneuver brings the broad surfaces the blades of the tractor in contact wi the bladder wall, minimizing the dang of injury to the bladder, removes the ha dle of the tractor from the operator's wa and brings the prostate plainly into t operative field (*c*), Fig. 6, for enucle tion. A semilunar incision is now ma

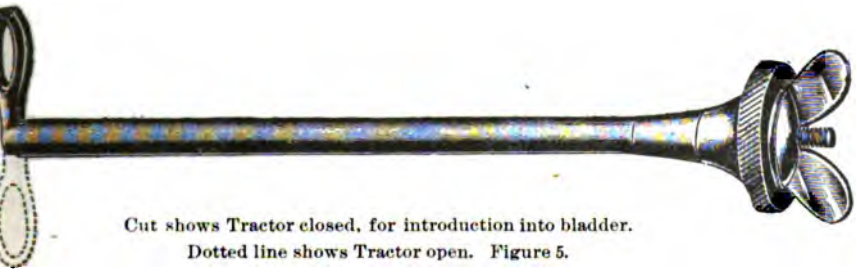


ugh the capsul of each lateral lobe
'), Fig. 6. The curve of these inci-
s is made as pronounced as possible,
affording the most room possible for
cleation. The cut edge of the capsul

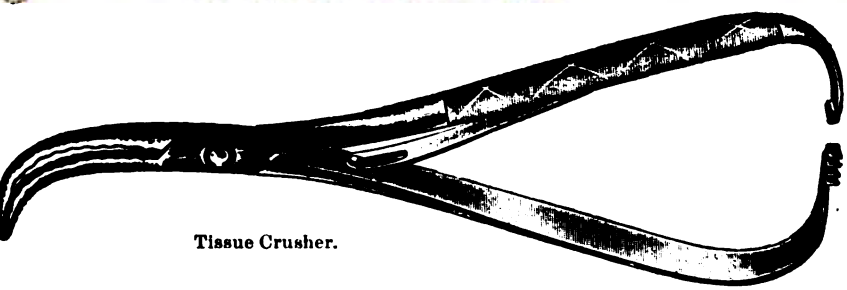
these bands are very tenacious and hard to break up by digital dissection. They are then isolated and our tissue crusher closed upon them (*a*), Fig. 8, which so nearly crushes them asunder that they are easily broken up, thus preventing hemorrhage and lessening traumatism. When the gland is released from these bands, it is easily removed. Both lateral lobes being removed in this manner, the middle lobe is pushed either to one or the other side, and removed through one of the lateral lobe incisions.

The wound is dressed and after-treatment carried out, as indicated in a previous paper.

Our tractor is very simple, easily understood and manipulated by any surgeon. It is introduced into the bladder closed, and is opened (*a*), Fig. 5, by turning thumb-screw five or six times to the left. The large nut is then slipped back on its shaft to the thumb-screw. The large nut is now held by the right hand, while the thumb and finger of the left hand turns shaft of instrument until the groove on the big nut is in line with the groove on the shaft of the instrument. The large



Cut shows Tractor closed, for introduction into bladder.
Dotted line shows Tractor open. Figure 5.



Tissue Crusher.

one side is caught by forceps (*a*),
7, and reflected. The enucleation is
commenced with a blunt dissector
Fig. 7, and continued until the finger
be introduced between the capsul and
gland. The finger is then swept around
l stopped by bands of tissue uniting
gland with its capsul. Sometimes

nut is then shoved back to its place, and the thumb-screw fastened. The instrument is now open and locked. The reverse of this closes the instrument for removal from the bladder. When operating, the groove on the nut and shaft must be in line, and must face the perineum. This is important. The advan-

tages of this tractor are: When in use the broad surfaces of its blades are in contact with the bladder wall. It is very simple, can not get out of repair, and is easily understood and used by any surgeon. The tractor is taken apart for cleaning by simply removing the thumbscrew.

The tissue crusher shortens the operation, and lessens the traumatism and hemorrhage.

4625 Greenwood Avenue.

[Written for the MEDICAL BRIEF.]

Cerebro-Spinal Meningitis.

BY GEO. W. BOWEN, M. D.,
Fort Wayne, Ind.

Possibly, I may be able to contribute something in regard to a disease that is now making its second appearance in this country.

Thirty-five or forty years ago (I can not look up the exact date) I was requested by a physician in Plymouth, Ind., to come and help him with some cases, as I had often done before. This time it was the spotted fever, and many were dying with it.

Knowing nothing about the disease, I went to help him, if I could, and to learn something about this new disease. Many had died after a short attack of it. Three physicians had also been called from Chicago. I stayed three days and found the disease affected the brain first and the upper part of the spine next, generally the second day. All had severe headache and generally a slight chill, to be followed by fever.

The distress in the head was always severe and remained until the patient got well or died. Some died in less than six hours.

We found that those that lived and got well had weals, or red blotches, come out on the back or shoulders, generally the third or fourth day, but if they did not appear the patient died, and then the blotches came out blue. These spots varied in size from that of a dime to a dollar. When the patient lived the spots faded to a brown or yellow, and disappeared in about a week's time.

The doctor and I decided that one cal plan would be to relieve the from the congested and accumulated and help hasten the appearance of blotches that seemed like hives, but elevated. Our methodical plan en us to cure many cases, and we concl that the cases could be treated simil those of suppressed measles, or ery las, that had been forced back fro natural location on the surface. It a local affair, like that of zona, or gles.

From Plymouth the disease nex peared at Richmond, Ind., and a few later, in my city. It was then I ha opportunity to treat nearly thirty by the plan we had discovered, and none. Many died here, and the do and friends, in five or six cases, coul tell why I had them turn over the child, or person, but upon seeing the or blue spots on the upper part of spine they then knew the cause of d

The spotted fever, or spinal-menin was not seen again by me until last ruary, when a patient of mine, a he farmer, complained of a severe pa his head, which came on suddenly. cause could be found for it, so I sent some medicine, thinking it might be raigia.

Next day he was much worse and, making a careful examination, I f he had a slight chill, and the pain gotten down into the spine; also, a that made him nervous. Hesitatin say so, but I assured him and his that he had the spotted fever, and i would look on his back in forty- hours she would find red spots. She f them at the end of that time and we all much relieved. The headache less slowly, but did not leave und week's time. The patient was r weak, or dull, for about two weeks

My next case occurred about the 1 April, and it was a violent attack young, healthy girl, aged twenty-five, urged by her mother to retire at o'clock, for the next night she woul up late. She was rather nervous a time, but went to sleep early. At e o'clock she awoke with a severe pa her head, and screamed for her mo Her mother, unable to do anything

called me, and arriving shortly before
ve, I found her still screaming and
ng. I found her head, neck and arms
cold and with a very feeble pulse.
alized it was severe congestion or,
ibly, a ruptured blood vessel in the
n. The pressure there had to be re-
d, whatever the cause. She was bet-
t three o'clock and went to sleep.
ne next morning it was apparent that
attack was not simply that of menin-
, but one of spino-cerebrolis, as the
went to her spine, while the head
still involved. She recovered fairly
but it took two weeks to get her
to a normal state. Menstruation had
ing whatever to do with her case.
inal-cerebrolis, or spinal-meningitis,
very different from meningitis, of
h I have seen several cases. I shall
r forget my first case, that I treated
53. The child died, however, though
lled in consultation. My next case
in 1855. This child recovered.

ne two diseases may attack and in-
e the same parts of the brain. Horses
phrenitis and show hydrophobic
ptoms, for they are vicious and ready
ite at any one. With delirium tre-
s we know that too much blood has
arrassed the brain, and we try to re-
the pressure of it there and prevent
danger of inflammation and, if we do
succeed, we let the undertaker take
case later.

have seen two remarkable cases, one
y whose limbs were nearly half black,
in a few weeks it all faded away.
told me he had always been troubled
hives.

ne other case was a child that had
e blotches on the back and face, and
family feared that its mother had
sed it, and if so they would have her
sted. Delirium has been seen present
eningitis, but the principal complaint
been headache and weakness.

reatment.—My plan of treatment, since
study of it at Plymouth, has been to
ve the congestion and aid in the ap-
ance of the weals, or blotches, on the
.

am a homeopath and have practiced
icine more than fifty years, and have
ned that violent or acute cases need
immediate and prompt treatment, and that the brain and heart must be more carefully treated than any other organs of the body; the brain is easier and the most succeptible to medicine of all.

Never give more than one-tenth of a drop of medicine for a dose and generally only one hundredth of a drop. In violent cases the doses must be put closer together and only allowing reasonable time for its assimilation or absorption.

Two remedies have been found to be needed in securing the pathologic changes, using them as they are desired. These are belladonna and bryonia. I give them in pills, of course, and am certain that if they are taken morning and night for one or two weeks the spinal-meningitis can not be contracted by any one, for what will cure a disease will prevent it.

Put three or four drops, not more, of belladonna tincture in a glass of water and prepare the same amount of bryonia tincture in same manner, and then give in teaspoonful doses, one hour apart, alternating for first day, two hours apart the second day, and after that three hours apart. Place cotton batting between the shoulders, or soft flannel, as nothing else is required for you to do. Let the bowels remain torpid for a week, if it is necessary, until the brain has recovered from the assault of the disease.

Thus, feeling the responsibility of giving this advice I can not help believing that if this treatment is followed it will save some who are near and dear to others.

I do not believe this disease is either contagious or infectious, or that there are germs that lay latent in the system to come into sudden activity and produce this disease. It can have no relation or connection with any other one unless it be meningitis, for it appears to be a separate and a distinct disease.

With cerebro-spinal meningitis the brain is the first to be involved, then it goes to the neck and spine, and, later, the spots or blotches may appear that are not caused by meningitis.. Whether the arachnoid or the dura mater is congested or not, I do not know, for all I cared for was to learn what would cure it, or prevent its development.

[Written for the MEDICAL BRIEF.]

Some Interesting Points Relating to the Psychic Powers of Man, Hypno-Telepathically Demonstrated.

BY C. EDWIN GOODELL, M. D., M. E., PH. D.,
Newark, N. J.

There are undiscovered potentialities in every human mind which only await the magic word of a positive command to be awakened from a state of lethargy to the realization of supremacy and power. I may say, furthermore, that there is nothing within the range of possibility which can not be accomplished by the one who recognizes the unlimited power of the mind and directs it with irresistible energy toward the thing desired.

Many of us encounter, and others read of instances of wonderful psychic abilities, but even so, do not imagine that it made its debut without considerable effort. This may be more fully realized when we take into consideration the extended time required for the development of the eastern adepts, of which I will speak later. One of the most wonderful exhibitions of psychical skill that I have had the pleasure of witnessing away from my native soil was while touring India, some twenty years ago, in company with a well-known American magician, who was in search of mystic material to add to his already extensive repertoire. Not being engrossed in the subject of psychology at that time, but familiar with American magic, was considerably astonished and, I may say, amazed, at the sight we beheld at an open-air seance given by one of those Oriental wonders, the yogi, or Indian fakir.

The occasion, if I remember rightly, was the Viceroy's natal day, a day of general festivities. Upon approaching the vast audience assembled our attention was particularly attracted to one of these fakirs, a wiry little fellow, who, upon giving a shrill whistle, threw what we supposed to be a rope, in the air, which straightened itself out in its upward flight, instead of falling to the ground, as one would naturally suppose, and was left dangling, as if from the sky. Presently the fakir clapped his hands, gave another whistle, and out jumped a small boy f somewhere, no one being within ten fifteen feet of the fakir, and he b clothed in nothing but a small br clout. The boy, being in full view of audience, was picked up from the gro by the fakir and tossed into the towards the hanging rope. Catching of the rope the boy began to climb, r key-fashion, until he was lost to viev the clear sky. After a few moments went the fakir until he, too, was los view. All eyes at this time were riv in space, watching for their return; w lo, down came sections of the boy, h arms, legs and trunk, which fell wit dull thud upon the ground, and a upon looking toward the rope we saw fakir descending, at first looking lik mere speck in the heavens, but gradu becoming larger as he neared the gro Upon his reaching the ground the membered portions of the boy gath themselves together, ran towards fakir and instantly disappeared, lea the whole assembly in wonderment.

The next phenomena brought to view was the mysterious basket tric modified form of which may be seen u the stage at the present time. The f produces a small, fragile bamboo bas which may be examined by the specta After thoroughly inspecting same, wizard places it upon the ground in view of the audience, closes the lid, o it again, still showing it to be perf empty. The lid is again closed, but moment begins to raise and a young appears inside the basket. The fakir mediately approaches the basket, fo the girl down with the lid, and upon d ing a long, sharp-pointed sword pie the basket on all sides, thus causing girl to scream. Each time the swor withdrawn we could see the blood str ing from its blade. The groans of child and the sight of the blood sickening in the extreme. As the dying gasp of the child was heard, fakir opened the basket, showing it fectly empty, the child having di peared. Upon examining the basket more we found no evidence of blood where in the basket or upon the gro

We looked at one another in am ment. My companion said to me, "Ar

vake, or all we all asleep?" I could say othing; candidly speaking, I was dumb-unded.

The seance ended there, and I have ver witnessed anything like it since.

Other instances of these wonderful ex-bitions of skill have since been reported various travelers. The report of offi-rs of an English warship, in company th several English civil officials, is full d complete regarding these wonderful ychological manifestations. One officer ys: "The first time I saw one of these own fellows doing his tricks I'll tell u it opened my eyes as wide as saucers. e were lying in an East Indian port, veral miles out, when he came swim-ing through the surf and scrambled up e anchor's chain, as nimble as a mon-y. He wore no clothing except a nar-w cloth around his loins, and had noth-g else upon him but a red cloth about yard square. The first thing he did s to pick up from the deck a ball of ine which some sailors were using, and he unwound the string from the ball went straight up in the air, instead of lling to the deck in accordance with the w of gravitation. He next took from e hand of an officer a half cocoanut, and lding this aloft, caused twelve buckets water to flow from it. Mind you, this low came over the rail of the ship. He uld not have had a confederate or any eans of assistance on board, because we d just come to anchor after a voyage several thousand miles. Everything used in his tricks belonged to the offi-rs and other men on board. An audi-ce crowded close around him, and there s no possible chance for deception. The kir then took a large earthen dish, ured into it a gallon of water, and held in his left hand, the other being lifted his forehead. The vessel began to ninish in size and shrank until it en-ely disappeared. Suddenly, we saw a own object, no larger than a grain of nd, which grew larger and larger until e dish regained its original dimensions, ed with water, which he spilled upon e deck. His last performance left us amazed that I, for one, went into a itting headache from thinking about He held up for inspection the red cloth which he brought with him. In order to keep it from getting wet as he swam out, he had it tied to the back of his neck in a tight little bundle. He passed it along and every one examined it closely. There was, evidently, nothing unusual about it. It was a plain piece of goods of coarse texture. After spread-ing it out flat upon the deck he walked around it several times, muttering to himself and turning his eyes upwards. Something began to move beneath the cloth. It grew in size as we looked, and out hopped a monkey, chattering and grinning like a little savage. In another minute an ugly cobra poked its venomous head from under the edge of the cloth and wriggled out in plain view. A much larger object began to stir beneath the mysterious red cloth, and a girl about twelve or fourteen years old arose to her feet and stood smiling there among us.

The looks of amazement on the faces of the men in that group is something I shall never forget. Before any one could stir, the fakir clapped his hands, then his creatures vanished into air. Quickly fold-ing up his little cloth he leaped into the sea and swam away with the graceful, easy strokes of a strong swimmer.

"At another time my astonishment was even greater when I saw what is known as the mango tree. I was present at one of these extraordinary public occasions when an elderly member of the caste ap-peared, and with many thousands of peo-ple about him buried in the ground a mango. I occupied a vantage point and closely watched every movement for signs of collusion. This was impossible, be-cause the crowd approached to within a few feet of the fakir. Watching closely we began to see a shadowy something emerge from the ground, growing and spreading until it resolved itself into a mango tree fully fifty feet high, bearing leaves and fruit. It was perfectly rigid, not a leaf stirring in the breeze, and, fur-thermore, though the sun shone brightly, it cast no shadow. I changed my position and the vision became less distinct, but on going back to my former stand I saw it plainly again. I was impressed with the peculiar expression in the eye and on the countenance of the wizard. People of many races were present and from thou-

sands of voices one could hear expressions of amazement. We went forward and touched the leaves and trunk of the tree, and actually tasted the fruit from its branches."

The captain of an English passenger steamer relates the following. He says:

"Once when there was among my passengers an English lady and two little children, an old fakir with a young girl came aboard. Everyone gathered around them and all very soon were much interested, especially the English lady, who was peculiarly and painfully impressed with the expression of the old man's face and eyes. With several others of the party she sat in a circle about him. After a few insignificant performances, he and the girl stood perfectly still; finally the girl began to raise from the deck and float across the space between the lady and a hammock, in which her baby and little girl were resting. To her horror she saw the fakir's girl stoop over and take up the baby. Holding the child she rose from the deck, higher and higher, until she was lost in the clouds, the mother, in the meanwhile, being unable to cry out or move, as if she was in a sort of waking nightmare. Suddenly, as she watched she saw a small spot in the clouds, and as it grew larger it took the form of her baby in the arms of the girl, who gradually descended to the deck and laid the child carefully beside its sister. Just then the mother had the power to break away from the circle, and, rushing to the side of the hammock, she eagerly snatched up the child, only to find it asleep and unhurt. 'How could you let that strange woman take your little brother away?' she screamed to her astonished little daughter. The child replied, 'Why mamma, brother has been asleep here by me all the time; no one has touched him.'"

In looking through Jacollicot's "Occult Science in India," we find the narrative of an educated gentleman occupying a high judicial position for fifteen years, a resident of India, and a close student of its people, its customs and peculiarities. He relates one instance of the yogi's power to move inanimate objects. An immense bronze vase, full of water, stood in Jacollicot's room. The yogi stood several feet away and extended his hands towa
the vase. Within five minutes it co
menced to rock to and fro upon its b
and gently approached the yogi with
regular motion. Metallic sounds issu
from it led him to think that some
had struck it with a steel rod. The blo
at times were quick in succession, and
numerous that it resembled hailsto
falling upon a metal roof; sometim
measured and slow, and again continuo
like the roll of a drum. The yogi
asked if directions could be given rega
ing the movements of the vase, and c
sent being given the vase moved ba
ward and forward, according to the co
mand given, the blows changing in th
intervals, in response to requests, fr
slow strokes to a continuous roar.
another seance, taking a small wood
table, he placed it on the terrace in
open air, and asked the fakir if he co
fix it there so that it could not be mov
The fakir at once went towards the sta
and, placing both hands on the top of
stood motionless for ten or fifteen m
utes; then with the operator's permissi
Jacollicot approached the stand, but fou
it immovable, as if fastened to
ground. Violent efforts were made, w
the result that the top came off in
hands, but the legs and cross-braces
mained standing and still refused
move. Requesting the fakir to rem
to the farther end of the terrace, Jaco
cot was able to handle the stand with
difficulty.

In order to judge concerning the p
formances of the yojis, Indian fakir, e
it is needful to bear in mind that th
people possess the power of produci
hallucinations in the minds of other p
sons, simply by forming pictures in th
own minds, which they mentally impr
upon the minds of the spectators;
upon *one* only, but upon hundreds a
thousands at once, making what is kno
as a collective hallucination. The ba
upon which all exhibitions of this ma
cal power rests is a knowledge of the
lations that exist between objective a
subjective states of existence. If we c
ceive in our mind of a picture of a thi
we have seen before, an objective form
that thing comes into existence wit
our own mind, and is composed of

bstance of our own mind. If, by con-ual practice, we gain sufficient power hold on to that image and prevent it m being driven away and dispersed by er thoughts, it will become compara-ely dense, and be projected upon the ntal sphere of others, so that the latter y actually believe to see objectively t which exists merely as an image hin our own mind; but if we can not d on to that one thought—a mental ture—and control it at will, we can not duce its reflection upon the minds of ers and, therefore, such psychological periments as the moving of ponderable ects, levitation, rope and basket mys-ies, spirit materialization, etc., etc., en fail, not on account of any absolute possibility to perform them, but on ac-nt of the weakness of those who desire experiment, but have not the power to centrate and control their own ughts, and render them sufficiently id for transmission. A novel way of nonstration is to hypnotize a person l silently formulate in our mind a fic-ous scene representing a burning build-and a mother with her child in her ns appearing at an upper window; or, may mentally picture the murder of subject's wife, mother or child. The ject, standing several feet away, with face to the wall, perceives the scene h vividness which we have formulated l projected mentally, with all the emo-n that such scenes would naturally ex-e.

Here we witness a psychical manifes-ion, a phenomena, a transferrence of as from operator to subject, thus pro-cing what may be termed a telepathic lucination.

An operator who has gained the power concentrate and hold on to a thought, y—as I have said—project it upon other, and the process will be facili-ed if the subject is in a passive state, pnosis, or somnambulism. The subject merely acts upon the suggested ught of the operator, but having no l of his own—it being inhibited for time being—becomes a hopeless in-ument, through which the thoughts of rator are executed upon the subjective objective mind of the subject.

There can be no doubt of these yogi performances being illusions, because an attempt to photograph any of them reveals nothing but an empty plate. You are simply made to see things which do not really exist.

You will naturally ask, what are the qualifications necessary for the yogi? I will answer by saying that the yogis, the Gurus, the Chelas, the Swamis, the Adepts, the Gnanis, and the Mahatmas, both of India and Thibet, belong to a separate class of individuals, who, during a period of many years, undergo a course of psychic training which has for its object the modifying of their organization so as to greatly increase the production of that subtile emanation from the body which they call *agasa*, the force of the subjective mentality; in other words, psychic force.

They begin by going through a period of development, or probation. First they crucify the self. They strip themselves of all former raiment and clothe themselves in rags, they give away their possessions to the poor, they hunger and thirst, they bear physical pain and injuries without complaint, without even indignation; they sever all ties of blood and relationship. While undergoing this development the meanest beggar is their equal and friend, they are content with nothing less than the most absolute equality; envy, hatred, pride, vanity, even self-respect, is blotted out.

They will not take the life of the meanest insect. In their philosophy the insect is one of them. They repair themselves into a jungle to meditate, and there remain until fully developed. They have auto-hypnosis, first of all. That is to say, a condition of subjectivity developed by continued concentration. They find that a sitting, or a recumbent position, is best to secure physical tranquility, and in this position they gaze either at their navel, or at a point or small object, keeping the eyes there for a period sufficient to insure a state of subjectivity, perfectly oblivious to the surrounding world. They do not develop this power in a few hours, or a few days, as many suppose. Every spirit medium will tell you that her period of development covered months of daily sittings in the silence, waiting for what was

to come. After her period of probation she begins to get phenomena.

Never mind what hypothesis you accept as to the origin of these phenomena; the important thing is that the phenomena are produced, and that the fakir and medium get them and produce them because they followed the necessary rules for producing them.

In conclusion, I would say that these observations have a direct bearing upon telepathy. They show that the observer must forget self and concentrate his mind upon the operator or the process in hand; he would, in this case, naturally be expectant. The operator, in turn, has his whole mind concentrated upon the scene to be enacted.

By carefully observing the incidents of this kind and keeping a careful record of them I have gathered considerable evidence of the influence of one mind over another.

These phenomena, therefore, may be accounted for upon the theory of telepathic suggestion. There are, permit me to add, many occurrences which seem to support the hypothesis that the exercise of the will-power of an individual being for the control of his own functions, induces a like impulse in the brain or nerve centers of another, the more powerful the concentration of the will-power of the one and the less the effort of the other to resist its effects, the greater the induced impression will be. The physical and psychical phenomena of Hindoism and Spiritualism, therefore, may be explained by telepathy, magic, or muscular automatism and illusion, or unconscious misrepresentation telepathically projected. The Hindoos, owing to that intent love for solitary meditation, which has been one of their most pronounced characteristics as far back as 580 B. C., have developed the subjective mental faculties to such an extent that Western civilization look on in wonderment. Hypnotism is, therefore, the key that unlocks the secret cabinets of this science, and robs it of its further mysteries. A man who can hypnotize any part of his own anatomy, cause his heart to stop visible pulsation, his external surface to grow cold, his eye to become
and his breath to depart, has, indee
wonderful power, and is endowed wi
full complement of concentrative abil

140 W. Kinney Street.

[Written for the MEDICAL BRIEF.]

The Keynote to Strength.

BY AXEL EMIL GIBSON, M. D.,
Los Angeles, Cal.

Every vital process has its cause
sustaining basis in thought. The
order of growth must, therefore, pro
from within outwardly, from though
act. Hence, while it is possible to en
der action and apparent strength wit
the proceeding processes of mental
spiritual realization, the fact still rem
that any advancement arising from
order of life is of a mere passing cha
ter. For growth, in order to be true,
arise from an harmonious order of e
ence. And, furthermore, as harmon
the tenor of an existence inter-rel
with other existences to the extent o
conception of solidarity and univ
usefulness, it follows that only
method of physical development whi
based on a motive of usefulness is of
true and enduring value to the indivi
For usefulness is the price which
form or expression of life has to pa
Nature for its growth. Hence an
devoted to the service of Mother Na
in cultivating the soil, or in training
plants and flowers, results in more
benefit to the individual than many t
the amount of time and energy spen
swinging dumb-bells, kicking footbal
in the indulgence of any indoor ath
sport. And if this usefulness consti
the legal tender, decreed by Nature a
only standard of measure in the acq
ment of physical health, it is evident
any effort aiming at these possess
through some other means or me
than that of usefulness, is equivale
theft.

In the practices of breathing, the
ple, natural rhythm of the animal br
must always remain the reassuring
infallible gauge to reach the evolutio
benefits aimed at, as the physical pe
tion which obtains in the animal kin

bears irrefragable testimony to the fact hat the animal holds in its possession he secret of true breathing. Yet this eritage was not attained by the animal ucking in, or expelling, the breath so many times per minute by the clock while squatted on a tripod with feet planted in certain angle, and eyes and mind fixed n some brass button on the wall at a neasured distance from the nose. Nor is he plastic curves, graceful movements nd verile powers of the free animal at- ained by the antics of chamber calis- henics, but rather by living in parallel- sm with the laws of its being, which is nother word for usefulness. The strain- ng for health, strength and beauty for he mere sake of personal enjoyment, in- olves all too small and puny a motive o insure survival value. Human life, in rder to yield eternal results, must be eld at a higher price, and conducted on roader lines of growth. Detached from he chain of universal solidarity, any ractice of breathing or muscular exercise olates the individual from an inner vital elation with the source and center of all fe. Hence the selfish attempts of an in- ividual to leave Nature behind him by rcing her to yield undue and unmerited owers, will ultimately recoil on the surper, and leave him helplessly behind the march of a resistlessly advancing, olitary nature. No power, physical or yper-physical, if merited by adherence the law and principles governing life, an be held away from its due claimant. Seek first after the Kingdom of Heaven, nd all the rest shall be given unto you," nd what is the "Kingdom" but the "will the Father," or the living up to the upreme laws of duty and conscience.

It is a mistake to believe that the qual- y of life is dependent upon the quantity volved in its sustenance. Gross ath- tic sports and strenuous gymnastics, enerally considered health and strength roducing, on the contrary, rather tend shorten than to lengthen life. For very strain means a shock to the organ- m, which again involves a break of the ythm of vital processes, followed by the bsequent disrupture in the rhythm of e involved functional processes. Not e crude, athletic feats of mechanical aining, but rather soft, gentle rhythmic movements, generate physical strength and beauty. Thus, the soft, rhythmic movement of the arm of the violin player in guiding his bow in accord with the harmonic unfoldment of the music, is found to develop a power and endurance in the biceps almost incredible, and the writer of this article once knew a famous pianist whose fingers, through practice on the keyboard, had developed such strength that a mere tap of the index finger on a china plate would shatter the latter into fragments.

More than physical action, however, is mental and moral action, the generator of true strength. Strong, purposive, concentrated thought applied to the work engaged in, charges every muscle-fibre with throbbing energy. Firm, determined aim in life, purity and massive strength in motive, and a realization of the dignity and responsibility of individual existence, engender a deep tonic effect upon every vital center of the organism.

August Comte, the father of positivism, while constructing his staggering system of philosophy, felt a dissevering of the frontal structures of his cranium, from the enlargement of the brain volume, as a result of the creative thought processes at work in his mind. On the other hand, it was Ludwig Feuerbach, of Leipzig, who made the observation that the sanity of the mind is maintained only by continued, purposive action.

The practice of our present time in straining every issue and circumstance, however unimportant from a vital point of view, to yield its utmost power to the advantage of any separate individual, regardless of merit, or approval of conscience, has given rise to an ominous ascendancy of exclusively material interests. Our entire commercialism, with its various crafts of art and construction, seems largely to be wielded by one single motive—the physical comforts of its patrons. Scarcely a single appeal is made to the lofty and sublime in human nature. Chastity and simplicity of design and conscientiousness in execution are quite exceptional in our general constructive work. Beauty and ideality are forced to the wall, while the right of way is given to luxury and sensual comforts; and in place of the individual extending efforts

to be useful to his commonwealth, does his best to make the commonwealth useful to him.

Indeed, there are but few expressions of our modern time which have escaped the taint of this passion for personal gratification. So, for instance, in matters of diet, the interest is so engrossed in the question of taste and palate, that it either forgets or ignores the question of digestion. The bill of fare is not intended to form an index to the healthy needs of the body, but rather to the morbid cravings of an hypertrophied and insane appetite.

And this sacrifice of spiritual interests to the triumph of the flesh is not limited to the world of industry and commerce, but forms a no less important factor in matters of public education—a circumstance which probably accounts for the failure of the school and church to successfully cope with the ever-swelling flood of immorality and crime, which, after all, are mere forms of egotism—self-seeking. Taught to be ethical, rather than moral, and to strain for reputation and public recognition rather than for character and self-respect, the individual, in his attitude to the vital issues confronting him, will exert his best powers only where he sees in view the attainment of some purely personal ends. The course of evolution, which in nature spells from within outward, from the ideal to actual, from seed to plant, from species to variety, etc., is largely reversed in the movements of human society, where, through an artificial pressure, nature is coerced to proceed from without inwardly, from the reactions of social environments, to the fashioning of conventional judgments and convictions, and finally by a plunge into the deeps of sensation and personal gratifications propose to attain a vision of spiritual attitudes. In place of the body being used as an instrument in the service of the soul, the individual, in devising schemes for sensual gratifications, places his soul-nature in a most degrading servitude to the body. Thus, in place of being the means by which to ascend the imperishable heights of immortal life, the body has become the worst obstacle possible in the way of such a career.

Can we reasonably conceive of nature or culture, in all their diversified expressions in the fields of physical and m growth, to aim at any other ultimate sult than to make men good and t But if this be so, should it not ther the self-written duty of every man to fellowmen to extend his approval and ronage only to those efforts of talents genius which aim at the improvemen character, and the elevation of moral ethical ideals of the people?

That the logical consequence of such attitude would be the extermination some ninety per cent of the books general literary publications of the wo and the abandoning of the great bul our inventions, does not lessen strength nor the urgency of the princ back of it, if the moral vigor and ir rity, which alone make true r hood and citizenhood possible, is be more worth considering than support of devitalizing and de alizing crafts and institutions. fulness should be the inspiring motiv every effort; a usefulness, however, based upon luxury, comfort and ima ary needs, but springing out from evolutionary vital necessities. When t necessities meet us on the moral and r tal plane we enlist the service of art their fulfillment. Hence art, not less talent, genius not less than mecha skill, should be gauged by vital needs necessities, whether the latter be fel the moral or physical plane. For any not based on inner vital necessity is generating into luxury and ceases to true means of culture.

Hence art degenerates into luxury moment it ceases to be an expressio vital needs. Luxury is art lost in seeking; art turned into a financial l ruled by desire and ambition in plac inner, vital needs. Art is universal impersonal, hence unselfish, and of g est usefulness for the moral upliftin humanity; while luxury is selfish circumscribed, aiming at personal and by appealing to and stimulating sensual elements in the human natu not only ceases to be useful, but bec a positive barrier in the field of hu progress. Consequently, any expre of talent or genius, in art or mecha craft, however startling and epochal application to industry or culture, i

directly or principally concerned in the moral betterment of man—of man as soul and immortal being—is a dissolving, deterrent element in universal evolution.

After all, the criterion given by Immanuel Kent almost two centuries ago, on the moral legitimacy of an act, still holds good as an infallible guide for human conduct: "Refuse support to any principle which is not morally applicable to any order of universal life."

It is the application of this principle of universal usefulness to daily vicissitudes of an individual's life that gradually but surely will put into his conscious possession the keynote to true and enduring strength.

[Written for the MEDICAL BRIEF.]

Echinacea Angustifolia.

BY J. M. FRENCH, M. D.,
Milford. Mass.

Echinacea angustifolia (common names, black sampson, nigger head, purple cone flower) is a perennial herb, belonging to the natural order compositæ, growing to the height of two or three feet, abounding in prairies and marshes, and on elevated tablelands, throughout the Central and Western portions of the United States. That which grows on the prairie lands of Nebraska is said to have the most active medicinal properties. It has a stout, erect stem, with thick, black roots, having a pungent taste. It flowers from May to July. The part used in medicine is the root.

This now famous drug was first introduced to the notice of the medical profession some time in the early '70s, by Dr. H. C. F. Meyer, of Pawnee City, Neb., in the form of "Meyer's Blood Purifier," a remedy for depraved conditions of the blood, and especially recommended as a cure for snake bites. It is said to have long been known to the Indians as a remedy for snake poison, and it is probable that Dr. Meyer got his first suggestions as to its use from them. He did not for a long time know the name of the plant which he used in making his "blood purifier," but he had such confidence in its virtues that he wrote repeatedly to the medical press in its advocacy, and finally sent a whole plant to Professors King and Lloyd, of Cincinnati, who analyzed it and pronounced it to be echinacea angustifolia. Professor J. U. Lloyd became interested in the claims which were made for it, and set about investigating them, with the result that he soon gave it the stamp of his approval, and in 1887 introduced it to the eclectic branch of the profession in the form of specific echinacea. It has been used quite largely by the eclectics, and to a considerable extent by the homeopaths, but only recently has it been studied, or used, except in a few instances by the so-called regular branch of the profession.

The principal preparations in use are the fluid extract, of which the dose ranges from fifteen to thirty minims; the specific tincture, which is the official electic preparation, the dose ranging from five to thirty drops. The dose of any of the preparations may be repeated every two to four hours, or, when the larger doses are used, three or four times a day. There is also a homeopathic tincture, made by macerating the entire plant in twice its weight of alcohol. This should be but half the strength of the specific tincture.

The tincture produces a feeling of pungent warmth when taken into the mouth, which increases to a tingling sensation after a time, and remains for half an hour, or more. This feeling resembles, to some extent, the tingling produced by aconite, and still more that of xanthoxylum. If swallowed undiluted, it causes a constriction of the throat, with great irritation. It promotes the flow of saliva, causes diaphoresis, and increases the activity of the kidneys. The glandular organs, almost without exeception, are stimulated by its use. It tones up the appetite and increases the power of digestion, encourages absorption and assimilation, and stimulates nutrition. It encourages secretion and excretion, and stimulates tissue waste more powerfully than any other known remedy. It does not appear to have any toxic effect.

It is primarily a remedy for depraved conditions of the blood, especially for those conditions included under the name

of blood-poisoning. It divides with calcium sulphide the honor of being a most efficient systemic antiseptic, non-toxic when taken in sufficient doses to accomplish the desired result. It is also an intestinal antiseptic. Its general properties may be included under the terms antiseptic, antifermentative, and antizymotic.

It may be used in every case where there is a tendency to sepsis and malignancy, or "bad blood," as in gangrene, sloughing ulcers, boils and carbuncles, and various forms of septicemia, and all suppurative diseases; puerperal, typhoid, and all septic fevers; tonsillitis, and ulcerated sore throat, diphtheria, stomatitis, catarrhal sore mouth, appendicitis, spinal meningitis, erysipelas, mammary cancer, fever sores, old ulcers, syphilis, snake bites, hydrophobia, and hemorrhoids. Ellingwood, in his Materia Medica and Therapeutics, relates several instances in his own practice where it has produced remarkable results in septic conditions. Meyer gives the history of six hundred and thirteen cases of rattlesnake bite in men and animals, all successfully treated with echinacea. Gregory Smith recommends it as a remedy in hemorrhoids, and says that twenty-five drops of the pure tincture injected into the rectum three times a day promptly effects a cure. Tyson, Adolphus, and others, report good results with its use in small-pox. It has, also, been used with success in scarlet fever. As a remedy it occupies, to a certain extent, the same field as baptisia, which is, however, comparatively limited in its applications.

While it is not probable that careful investigations and continued experience will sustain the wonderful and probably exaggerated claims which have been made by many enthusiasts in favor of this drug, yet in view of all that has been written—which contains so much that is favorable, and so little in opposition to its claims—it seems reasonable to believe that we have in echinacea a drug of great value to the general practitioner, and one well worthy of more extended investigation.

This drug is one of the most important ingredients in Ecthol made by Battle & Co.—Ed.

[Written for the Medical Brief.]

The Treatment of Pneumonia.

BY W. T. DAVIS, M. D.,
Harrodsburg, Ky.

Pneumonia is a self-limited disease. the majority of the cases we may look the crisis between the fifth and the e enth day. It is obviously our duty no interfere too zealously in natural cesses and by injudicious handling vent a favorable termination, for we h no specific remedy. The constitutic tendencies, and the surrounding circ stances should receive careful attentio deciding on a plan of treatment. A orous, healthy person will require m vigorous handling than a broken-d alcoholic. If seen during the stage of gestion much may be accomplished b full dose of quinia and morphia (qu ten grains, morphia one-quarter gra with small doses of the tincture of aco root (one or two drops, every two or t hours).

The feet and legs, up to the kn should be immersed in water as warn it could be borne, impregnated with verized mustard, for ten or fifteen utes. Mustard cataplasms should alsc applied to the chest, over the seat of p An active purgative should be admi tered after the quinia and morphia h been absorbed. The purgative serves the quinia and morphia to diminish abnormal blood pressure. Some ag which has the power to lessen the vis ity and coagulation of the secretion p ing out in the bronchioles and air s should be employed—liquor potassa ci tis is excellent, ammonia sometimes swers a good purpose. The solution the carbonate of ammonia in liquor monii acetas (one-half ounce, five grai every three or four hours. The ammc solution should be continued up to crisis. Arterial sedatives of every k should be discontinued as soon as cons dation of the lung is accomplished. If subject is robust the tincture of verati viride may be given with good effect ing the congestive stage, but when hepatization has resulted it ceases to useful, as does also the tincture of aco

for then arterial ischemia and over-distension of the veins exist, which certainly would be increased by the administration of cardiac sedatives. During this stage the temperature is very high, hence the necessity for employing other measures to restrain it. Under the existing circumstances we must rely upon the use of antipyretics. We should place our patient in a warm bath for five or ten minutes, the bath should be pleasantly warm (I give warm baths in pneumonia for fear of a shock with cold baths). When removed from bath tub the patient should remain lightly wrapped up, until chilly sensations commence, then apply more wrappings, to suit the demands. A warm bath will cool down the fever of a pneumonia patient equal to a cold bath, if lightly covered for a few minutes after taken out of the bath-tub; then there is no danger of our patient's having shorter and quicker respirations while in the bath tub, like they frequently do if placed in a cold bath. If any good has resulted from the bath it should be kept up as long as it does good and as often as the nature of the case demands it. If the means for a warm bath are absent, the patient should have the benefit of sponging with warm water.

The next best remedy to the warm bath and warm sponging is quinia. It is very useful for reducing the fever, but to accomplish the desired effect it must be given in ten-grain doses every three hours until the temperature falls sufficiently to suspend its use until the fever again demands it, which more than likely it will do in twenty-four or thirty-six hours. As long as there is fever in any case of pneumonia, the antipyretics should be continued; unless there is too much depression, which might be the case during the stage of red hepatization; if there is, quinia should be given in stimulating doses of two or three grains every three hours, and such stimulants as spirits frumenti and spirits vini gallici, but cautiously given in half ounce, or ounce doses, as the case may demand, every three hours.

The utmost circumspection is absolutely necessary as the period of crisis approaches, for some exhausting discharge, or some other grave phenomenon, may tax the vital powers too severely. Under those circumstances the careful administration of appropriate stimulants and suitable aliment may be the means of saving life. During the stage of exudation and of the exudates, coagulation, cardiac sedatives such as digitalis, aconite, veratrum viride, and others that could be mentioned, can, if given, only add to the burden of the heart, already laboring in consequence of the lack of blood on the arterial side, and of its stasis on the venus side.

Bromide of potassium (in twenty-grain doses, every four hours) in my hands has proven itself to be worthy of trial in such cases. It aids in relieving the stasis of blood on the venous side, it will retain the fluidity of the blood, it will prevent further clotting, it will give the absorbents an opportunity to do their part in relieving the lung of the stasis of blood that already exists. A continued high temperature contributes to bring about paralysis of the heart. The administration of quinia and tepid baths will, in a large majority of cases, obviate all tendencies of that nature. While arterial and cardiac sedatives should be avoided at the stage of red hepatization, it is also necessary to avoid the immoderate use of alcoholic stimulants, but at the same time alcoholic stimulants are needed in full doses in inebriates at the crisis, and also when the stage of purulent transformation is reached. Then the pulse is weak and rapid, the skin is clammy and relaxed, with more or less delirium; symptoms which positively call for alcoholic stimulants in broken-down alcoholics, and in full doses. Protracted wakefulness with delirium demands very careful management, owing to the condition of the pulmonary circulation, the collateral hyperemia and edema; opium or morphia should be avoided. Chloral hydrate will answer a better purpose; it has a good effect on the exudation, quiets delirium and procures sleep, but at the same time great caution should be used in the administration of the hydrate of chloral; fifteen grains at bed time and ten more grains in two or three hours, if the first dose was not sufficient, is all that is required. Frequently repeated doses, or doses too large, may cause paralysis of the heart. Without waiting for depres-

sion to come on, aliment should be given; it may be carefully given from the beginning. Chicken or mutton broth, beef juice, milk and egg flip, with a little wine, aids wonderfully when our patient is greatly exhausted under the debilitating powers of such a dreadful disease as pneumonia. In very weak or exhausted subjects, wine may be given from the beginning. The inebriate with penumonia should have alcoholic stimulants from the very first symptoms of the disease, for the delirium that always accompanies pneumonia in inebriates is largely due to the sudden withdrawal of the usual supply. Fly blisters are undoubtedly of great service when the crisis occurs. I have tried them in pneumonia for fifty years; they have acted well for me, but at the same time they should be closely guarded. If there is prune juice, expectoration relaxed and sweating skin, with weak pulse, small doses of turpentine or eucalyptus may be given.

[Written for the MEDICAL BRIEF.]

Enuresis.

BY L. HERBERT LANIER, M. D.,
Martinsburg, Mo.

Incontinence of urine is a symptom which depends upon insufficiency of the sphincter vesicæ muscle in the greater per cent of cases, yet I am pleased to quote Carpenter, who says:

"Enuresis may be caused by debility of the neck of the bladder, and of the internal sphincter; insufficient innervation from disease of the spinal cord and of the nerve centers; reflex irritation; masturbation; over-distention of the bladder with urine, and changes in the constitution of the urine."

And to the above list of etiological factors figuring in the production of this troublesome malady, I shall add a few, the potency of which are confirmed by extensive observation of these particular cases.

Partial anesthesia of the sensory nerves of the bladder, due to congenital anatomical defects, the nerves become accustomed to this constant pressure, and can not respond to stimuli.

The anomalous condition of the bla der referred to is an abnormally sma bladder, with thickened walls, due t chronic inflammation of the vesical mu cosa.

Incontinence, in many cases, is due t hyperacidity of the urine, cystitis, or a adherent prepuce, either of the glan penis or the clitoris; pyelitis, nephriti vesical calculi, masturbation, and recta irritation.

Prognosis.—Favorable where the caus is discovered and removed.

Treatment.—The treatment must b empirical unless the cause be discovere and its removal effected, as is true i treating all other diseases.

Outdoor exercise should be encouraged As to diet, coffee and tea, as well as heav meats and deserts, should be prohibited Elevate the foot of the bed three inches and have the patient sleep with head low give a hot foot bath before retiring, an cold sponge bath in morning.

Ferruginous preparations are indicate in anemic cases, the syrup of the iodid of iron is readily taken by children. Fo adults give tincture nux vomica in a cending doses, where due to weakness o sphincter, salol in six or eight-grai doses where due to abnormal condition o the urine. The following prescriptio will prove efficacious in treating all cases

℞ Santonin.....1 drachm
Bromidi Potassi.....2 drachm
Extractum Valerianæ Fluidum...3 ounces.
Aquæ Dest.....q. s. ad.....4 ounces.
M. et. Sig.: Cochleare parvum three time a day, post cibum.

Where the bladder is abnormally sma and inflamed, dilatation by vesical irrig tion with solution of permanganate o potassium, one-three thousandth, is esp cially indicated.

In young women this procedure is a ways necessary, and frequently you ca not accomplish a cure until nitrate of si ver, in weak solution, has been applied t the urethra and bladder.

While it is true that you have to ind vidualize your cases and direct you strongest therapeutic agents against th predominating element in the malad yet you can, by close observation o your patient, discover the weak point an you will find among the remedies I hav here suggested something that will sure

influence the case toward a favorable termination, if the proper relationship exist between the adaptability of the drug to the disease.

Hence, there is no excuse for a physician to tell anxious mothers that the child will outgrow its present trouble, which will probably prove to be untrue in half the cases, as is proven by the many young men and women who apply to every physician for treatment for this dread malady, stating that they were unable to retain the urine in the bladder in daytime, thus depriving them of education by keeping them at home; depriving them of social and business relations with the world at large, and which by its psychological influence on the sufferers caused them to seek solitude, where they could pine away in secret anguish for the want of relief from their affliction.

But just here I wish to suggest that dietetic and hygienic precautions suffice until the patient is three and one-half years of age.

I have never failed to accomplish a cure in these cases and I sincerely hope that every physician may soon be able to make similar assertion.

[Written for the MEDICAL BRIEF.]

Necessary Abortion.

BY ANDREW J. MANN, M. D.,
Evermay, Ga.

Sometimes it is very necessary to produce an abortion. Nothing indicates an inevitable abortion more than profuse hemorrhage, and this, without the prompt expulsion of the fetus and secundines, is where the trouble and danger comes in. It is owing to the rigidity of the os that prompt measures are not secured with the ordinary oxytocics; but, happily, this may be overcome by thorough packing with the gauze tampon, absorbent cotton saturated in the iron alum solutions. Every practitioner should be provided with uterine dilators. Do not borrow from your neighbor; have some of your own, and you will not then be disappointed with ergot or dangerous delays. Dilate the os when the temperature runs high, at least, with the dilators, and prompt contractions will follow, with the expulsion of all the contents, saving much time, and avoiding the great dangers of further hemorrhage and puerperal sepsis.

A dead fetus gives rise to a high temperature and danger to sepsis. The dilators are my anchors.

Examination Questions of the Indiana State Board of Medical Registration and Examination. Indianapolis, Ind.

M. S. CANFIELD, M. D., President.
W. T. GOTT, M. D., Secretary.

(Submitted by J. C. Webster, May 2, 1905.)

MATERIA MEDICA AND THERAPEUTICS. (REGULAR.)

1. Give derivation, medicinal dose and therapy of suprarenal extract (1:1000 sol.).
2. Give derivation, medicinal dose and therapy of hyoscine hydrobromate.
3. Give derivation, medicinal dose and therapy of pilocarpine hydrochlorate.
4. Name a medicinal agent which increases the renal function by its action on the cells of the tubules, and one which stimulates said function by increasing blood pressure.
5. Name some medicinal agents which are parasiticidal in their action.
6. Name some medicinal agents which are regarded as intestinal antiseptics.
7. Give technic of hypodermoclysis.
8. Give technic of the administration of (*a*) chloroform, and (*b*) sulphuric ether to surgical anesthesia.
9. Give antidote to carbolic acid.
10. Name antidote, and dose of same, to arsenic.

INTERNAL MEDICINE. (REGULAR.)

1. Give etiology, symptoms and treatment of cerebro-spinal meningitis.
2. Give etiology, symptoms and treatment of acute pleuritis.
3. Give etiology, diagnosis, remote pathologic results and treatment of mitral disease of the heart.
4. Give treatment of pulmonary hemorrhage.
5. Give etiology, symptoms and treatment of cirrhosis of the liver.
6. Give etiology, symptoms and treatment of gastro-intestinal catarrh of infancy and childhood.
7. Give etiology, symptoms and treatment of dysentery.
8. Give etiology, diagnosis and treatment of acute nephritis.
9. What symptoms would lead you to suspect cancer of the stomach?
10. Give symptoms and treatment of gastric ulcer.

ETIOLOGY AND HYGIENE.

1. Give etiology and hygienic measures for prevention and treatment of tuberculosis.
2. Give etiology and hygienic measures for prevention and treatment of acute gastro-intestinal catarrh of infancy and childhood.
3. Give etiology and hygienic measures for prevention and treatment of typhoid fever.
4. Give hygiene of sick room.
5. Describe personal hygiene.

ANATOMY.

1. Describe the quadriceps extensor femoris muscle.
2. Give a brief description of the solar plexus.
3. Give the names of the muscles that flex the leg upon the thigh.
4. Name the regions into which the abdomen is divided and give the structures in each region, by diagram.
5. Give the anatomy of the portal circulation.
6. Where, on the anterior chest wall, do you get the most distinct sounds of the cardiac valves, and why?
7. What are the anatomical reasons for pulmonary engorgement when the cardiac valves are incompetent?
8. Explain anatomically why inguinal glands are involved from septic infection at the foot.
9. Give the anatomy of the hip joint.
10. Give the origin, course and distribution of the phrenic nerve.

PHYSIOLOGY.

1. Give the names of the tissues which compose the body, and tell where each kind is found in the animal organism.
2. State the various facts to which are due the phenomenon of normal blood pressure.
3. What digestive changes take place in the small intestines?
4. Mention the principal excretory organs of the body and explain the difference between excretion and secretion.
5. Mention the facts and conditions that favor absorption and those that retard it.
6. How does the fetal circulation differ from the circulation after birth?
7. How is animal heat generated, maintained and lost?

PATHOLOGY AND BACTERIOLOGY.

1. Define degeneration and infiltration.
2. What is the pathology of enterolithiasis?
3. Describe all of the pathological conditions present in a heart where mitral stenosis has existed for several years.
4. Describe a lung affected by broncho-pneumonia.
5. Describe the pathological conditions present in each of the forms of goitre.
6. What is the pathology of spina-bifida?
7. Explain the difference between congestion and inflammation.
8. Name the different modes by which bacteria propagate.
9. How would you obtain a pure cultu the Klebs-Loeffler bacillus?
10. What bacteria may cause chole titis?

RHINOLOGY AND LARYNGOLOGY.

1. What is the most common cause o struction to the posterior nares?
2. Differentiate between tubercular syphilitic laryngitis.

NEUROLOGY.

1. What are the general diagnostic s toms of cerebral tumor?
2. What are the diagnostic symptom multiple sclerosis?
3. Give the location and functio Broac's convolution.
4. Give the etiology of multiple neuri

MEDICAL JURISPRUDENCE.

1. What are the diagnostic sympton morphine poisoning?
2. What are the characteristic *post-m* findings after drowning?

CHEMISTRY.

1. Give the formulæ of (*a*) cane sugar glycogen, (*c*) glucose.
2. How would you detect the presen indican in the urine?
3. What is the clinical significanc leucin and tyrosin in the urine?
4. What is the difference between the curous and the mercuric compounds? Gi example of each.
5. What is the difference, regarding bility, between alkaloids and their sal each of the following: (*a*) Water, (*b*) (*c*) alcohol, (*d*) benzene?

SURGERY.

(In questions concerning differential nosis use parallel columns.)

1. Differentiate between ulcers of th due to the following causes: (*a*) Syp (*b*) epithelioma, (*c*) varicose veins.
2. In what portion of the male urethr gonorrheal strictures most common?
3. Differentiate between the follo swellings in the inguinal region: (*a*) abscess, (*b*) irreducible hernia, (*c*) bubo
4. Tabulate the causes of mechanical
5. Give the etiology, most common si lesions, and diagnostic points of actin cosis.
6. Give etiology and classification of tric cancer.
7. Differentiate between acute arti rheumatism and gonorrheal arthritis.
8. Give the differential diagnosis classification of aneurysm of the pop artery.
9. Differentiate between a dorsal di tion of the hip and tubercular coxitis.
10. Give the pathology and diagn points of erysipelas.

(The questions of the eclectic, homeop physio-medical and osteopathic branches appear in the next issue.—ED.)

Dr. Bernard M. Jackson

M. D., LL. B. Omaha, Neb.

Charles A. L. Reed

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Editorial.

Theoretical vs Practical.

That period of American history which ceded the civil war is called the practical age of this country. The present day called by some writers the theoretical . It is remarkable for the prevalence fads and theories in politics, religion medicine.

n this connection we are reminded of old joke about the divinity student, home on a vacation, who accompanied father to church on Sunday to hear new minister's discourse. After the mon he called the clergyman aside said to him, "Sir, I have learned re from hearing you preach this morn- than I have from all my studies. preached to-day on Sodom and norrah. I am well informed on doc- al points, but up to this time I had posed that Sodom and Gomorrah were n and wife."

Evidently his time had been so taken with the consideration of theories that his practical knowledge of the Bible had been neglected.

Not long since a young medical graduate told the Editor he had acquired some valuable practical information during a recent attack of rheumatism, which was new to him.

It seems he had been given salicylate of soda. His stomach was already out of order, and the medicine did him no good. When he got home he called in the old family physician, who made the same prescription, but specified that the soda salt should be prepared from salicylic acid, obtained from oil of wintergreen. Much to his surprise, the last prescription not only acted nicely on the stomach but cured his rheumatism.

Thus he learned the practical fact that while salicylic acid made synthetically is chemically correct, it does not act on the system like that made from oil of wintergreen.

Facts of this nature, so useful and necessary in practice, ought to be taught in college. This young man was well-informed on bugs, knew the latest and most approved methods of staining and

mounting bacilli, making cultures, etc., but when it came to practical facts in clinical medicine, he was at a great disadvantage.

The trouble is that the character of the teaching in our medical schools has changed. Nowadays they hasten to adopt the fads, indulge in speculation, and inculcate pet theories instead of familiarizing the student with drugs, their indications and other practical agencies for curing disease.

The same tendency is seen in affairs of government. In antebellum days, men were instructed in the rights of the individual, how to secure and preserve them. In that early age, men were really equal before the law. No man was above it, not even an official. Nowadays, there has arisen in this country a force of arbitrary power, working through machines, which usurps the rights of individuals, and menaces our institutions. This force takes advantage of our fondness for theory to secure the passage of all kinds of fool laws, providing offices and salaries for the underlings of the machine. Corruption, bribery, graft, are the natural sequences.

Things have arrived at a pass when policemen, appointed to preserve peace and order, do not hesitate to break down doors and invade homes to secure evidence, they arrest men without warrants, and use every artifice known to craft to induce suspects to incriminate themselves. Indeed, in some parts of this country, the principles of free government have practically lapsed and are forgotten.

People must be aroused to a realization of the danger of these conditions to the individual. The police and other officials must be made to keep within the law as well as other people. Abuse of the law is the surest way to bring it into contempt.

No one but Americans should hold office, and no one should hold office who is not thoroughly imbued with the fundamental principles of our government as laid down in the constitution. His duties, powers and limitations should be carefully and clearly defined.

Doctor, you are a broad-minded man, a thinker, an influential man in your community, and interested in the cause of good government. You can do a good work by helping to disseminate cor ideas of government among the peo and at the same time gain their adm tion and respect.

It is Not Treason Now.

At one time it was considered trea by the Church, for a man to do any th ing for himself in religious matters. was impressed upon him that he had right to think except as the Chu taught. The same idea prevailed in State—the old monarchical idea that was a subject, and had no right to do independent thinking in politics. A senting opinion in matters of Church State was heresy and treason, entail the severest punishment.

To some extent the same idea is be promulgated in the medical professio this age of the world. The doctor being told that he has no right to th except as the profession thinks, and "the profession" is meant some half-do self-constituted leaders, who do the thi ing for the profession.

But, fortunately, it is rather late in day to promulgate such an idea succ fully.

Can any one tell us why the doc should not have the right to patent a gical instrument or anything else wh he may invent? The doctor who inve such an instrument, or any device, of to the sick, has just as much right patent it as has the man who invent new plow.

To ask the hardest-worked, poorest-p class of men in the world to forfeit such rights, and blindly follow the tates of a few, is too much. Why sho the doctor be the only man to rack brain and tax his body, lose sleep, storms, and finally go untimely to grave, leaving his family in dire p orty, to further a quixotic idea of ethi Such self-abnegation is heroic, subli Yes, and it is the rankest folly.

The Folly of Dissembling.

Some people have an idea that t must pretend to be something that t are not. Never was there a greater take. Hypocrisy is repugnant to ev

rmal mind, even if it be practiced in
e cause of so-called ethics. Just be
nest and sincere and the rest will take
re of itself. Accept yourself as you are,
d make the most of your opportunities.
A man need never be ashamed of his
als and mistakes. He scarcely realizes
w they interest and encourage people
o have suffered in the same way, never
specting that others shared in their
aknesses and errors. When a man finds
t that his own qualms and doubts are
e common lot of all, he is helped by the
ought that he may expect to find a way
t, just as others have.

Many people have an impression that, order to be popular, one must be in-cere, must profess what one does not l, say what one does not think. Few elligent persons can be imposed on in s way. Simplicity, sincerity and po'se ke more friends than meaningless flat-les or backboneless deference.

The man who means what he says, and s what he means, is the man who is pected and trusted. People know what expect from him, and where to find n. A man can not pose for long. He sure to be found out, and then he sinks the estimation of others to a greater oth than if he had not tried to elevate nself by false pretenses.

A master of diplomacy once said that most successful way to fool people s to tell them the truth. The late P. Barnum, of circus fame, took advan-e of this in advertising his summer ne for sale. He enumerated all its advantages in graphic terms, winding with the statement that mosquitoes re so bad no one could live there. eryone was amused, but no one be-ved him for a moment.

To be sincere, therefore, is to be strik-ly original, and that is always wel-ne where so much is hackneyed. *Sin-ity is like a cool hand on a fevered w, or like a cup of cold water to one irst.* It is soothing and grateful. It ms the mind and satisfies the heart.

There is a chord in every human being ich vibrates at the touch of sincerity. is sincerity which gives the thrill to quence. It is the note of sincerity ich moves the crowded audience to en-siastic response. Without sincerity a man may discourse learnedly, or make flights of oratory, but it will all fall flat.

To be sincere, a man must do his own thinking. His beliefs and acts must be based on conclusions which he has reached by his own mental processes. He must have courage to take his stand, and hold it until he gets more light. He must think well of his fellow men, and bear them good-will, for then it is easy and natural to be sincere.

Dissembling is always folly, however we look at it. In the first place, it never imposes on anyone for long, and then it hurts and hinders the upward development of the man who practises it. The experiences of life tend to raise a man if he will only keep his eyes open and learn to think. It is an anachronism and an irreparable mistake for a man to "play 'possum," to try to throw dust in people's eyes, or to pretend to be other than he is.

[Written for the MEDICAL BRIEF.]

Fibroids of the Uterus in Pregnancy and Labor.

BY ROBERT A. MURRAY, M. D.,

Formerly Professor of Obstetrics in the New York School of Clinical Medicine; Late Surgeon to the City Hospital; Fellow of the Academy of Medicine, American Gynecological Society, etc.; Member of the County Society, Obstetrical Society, Alumni Bellevue Hospital, Northwestern Medical and Surgical Society, etc. New York City.

Of the three varieties of fibroids of the uterus, sub-peritoneal, interstitial, and sub-mucous, the sub-peritoneal has the least influence, and is least influenced by the condition of pregnancy; unless the sub-peritoneal fibroid be behind the uterus, low down, unable to be lifted up by the ascending developing uterus, labor, as a rule, is not impaired, nor is pregnancy interfered with.

During pregnancy, fibroids may undergo rapid growth, and by pressure symptoms cause pain, incarceration of the uterus in the pelvis, dysuria and vomiting, so as to necessitate interference. Particularly if the pressure be so long continued as to cause threatened abortion or necrosis of the tumor itself. As a general rule, however, where the fibroid is not low in the pelvis, neither pregnancy nor labor is interfered with.

A rapid-growing fibroid may be mistaken for a developing pregnant uterus, and, on the contrary, a developing uterus may be thought, when a fibroid is present, to be a rapidly growing fibroid.

Diagnosis.—Fibroids of the uterus are most frequent in primipara between thirty and forty years of age, are apt to cause displacements of the uterus by their weight, if situated posteriorly, or low down anteriorly, and also by their rapid development to give pressure symptoms on bladder and rectum. From the displacement a diagnosis of retroverted uterus is to be made. From the continued pressure, degenerative changes in the tumor result, causing sepsis and bloody discharges, possibly followed by abortion, and accompanied by profuse flowing, and sloughing of the fibroid, leave no doubt as to diagnosis.

Interstitial and also sub-peritoneal fibroids having long pedicles in the early months of pregnancy, may be confounded with ovarian cysts, displaced cystic ovaries, dermoid cysts, and other tumors. Pregnancy should never be diagnosed unless other symptoms and rapid growth of the symmetrical uterus be present.

Treatment.—Sub-peritoneal fibroids are little influenced by pregnancy unless the tumor be low in the pelvis, and prevented from rising, when operation may be demanded to prevent degenerative change from an interference with its nutrition, and to prevent abortion. The submucous and interstitial varieties are more prone to rapid growth, to less local degeneration, but may demand operation at time of labor from interference with delivery. The risk during pregnancy may be summed up as follows:

1. Rapid increase in the size of the tumor, causing severe pain and distress.
2. Incarceration of the tumor in the pelvis.
3. Serious pressure on the bladder.
4. Degeneration of the tumor through diminished nutrition.
5. Excessive rotation of the pregnant uterus.
6. Abortion or premature labor as a result of pressure or of sub-mucous development of the fibroid.

Abortion or labor might be complicated by (1) Obstruction of the natural passages; (2) by mal-presentation; (3) retention of the placenta or membran (4) by extrusion of the tumor dur labor.

During the puerperium, the presence uterine fibroids renders septic infect more likely, and whether to interf during pregnancy or not depends upon presence of the symptoms before the set.

The choice of operation will be det mined by the site of the tumor, amount of pressure symptoms, and period in the pregnancy. Abortion w this complication has had a large mor ity, and most authorities are agreed t it is bad practice. If no urgent sympto are present, the case may go on to te If the tumor can not be lifted out of pelvis, celiotomy followed by myon tomy or hysterectomy should be d early. If the tumor is interstitial, early myomectomy, before degenerat or sepsis, is indicated, and in a num of instances the pregnancy has c tinued. At labor, if obstruction occu Cesarian section, followed, if possible, a myomectomy, or Cesarian section, le ing the uterus to be dealt with after puerperium; or a Cesarian section w hysterectomy after the delivery of child, have all been performed succ fully as the case demanded. During after the puerperium, severe bleeding apt to occur, and instrumental inter ence is often necessary. Added to t the sloughing of the fibroid mass, sep as a frequent complication of fibroids hysterectomy may be demanded.

The use of the curette to clear out bris of placenta and membranes may o up a capsule of sub-mucous fibers, local sepsis may result from necro which may demand early hysterecto to prevent purulent infection. The c ette should seldom be used in a fibr uterus, for fear of infection, subsequ sloughing and sepsis.

112 West Eightieth Street.

Enclosed find check for one dollar, which continue the BRIEF for 1905. I f the BRIEF very helpful, and enjoy its dependence and free speech.—ANNIE MARSH, M. D., Lynnville, Tenn.

THE MEDICAL BRIEF

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[Written for the MEDICAL BRIEF.]

n the Group Classed as Rheumatoid Arthritis.

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London, England.

The title of this paper may be taken as ording some indication of the purpose the writer. It has become increasingly evident, of recent years, that we have been in the habit of classing a variety of arthritic conditions under the term rheumatoid arthritis, and that a revision of the nomenclature is urgently desirable, or, at least, one should admit the existence of various forms of rheumatoid arthritis. Until a comparatively recent date, the disease was known and written of in standard text-books as chronic rheumatoid arthritis, the existence of acute and sub-acute forms not being definitely recognized.

One of the main objects of this paper is to emphasize the existence of the acute form, and its marked distinctions from the most chronic form, *i. e.*, that form occurring typically in elderly people, for which the term osteo-arthritis is suitable, and to which this term should be restricted.

The typical osteo-arthritis is essentially a degenerative process, and has little in common with that rapidly progressive disease of young adults, which is accompanied by grave constitutional disturbance, and for which the term rheumatoid arthritis may well be retained. Bertram Abrahams in a recent article writes: "At the outset I would venture to say that I count myself amongst those who think that this name (*i. e.*, rheumatoid arthritis) should be discarded, as both barbarous and unscientific." I am, myself, not prepared to go to this extent, but I should propose to restrict the term to certain forms of arthritis.

Dr. A. E. Garrod, also, in opening a recent discussion on the relation of the rheumatoid arthritis and chronic rheumatism to acute infective rheumatism (the so-called rheumatic fever) pointed out that the contents of any modern text-book would bring home the fact that we were living in an age of transition with regard to the classification of disease. He further advanced the view that the terms "rheumatism" and "rheumatic" were more loosely used than any others in the vocabulary of medicine, and that it would be not too much to ask that in future the term rheumatism should be limited to acute rheumatism, and to conditions believed to be the products of the same morbid process or sequelæ of its activity. He added that there were few now who re-

fused to recognize acute rheumatism as an infective disease.

It is, however, more especially with regard to chronic rheumatic conditions that views have changed, and are changing, rapidly. There is small doubt that we have been, and still are, in the habit of classing a number of different chronic articular diseases under such a term as rheumatoid arthritis. Moreover, until recent years, it has been the custom to speak of rheumatoid arthritis as a chronic disease only. One of the chief objects of this paper, as above stated, is to emphasize the fact that the disease may have an acute onset, and may run a rapid course, and to point out that this acute and subacute condition has distinct clinical and pathological distinctions from the chronic rheumatoid arthritis of elderly people, the condition for which I should prefer to reserve the name osteo-arthritis. The term arthritis-deformans I should put aside as valueless, and entirely failing in definition, a multiplication of names for one type of disease already constituting a more than sufficient inconvenience to nomenclature.

Abrahams (*loc. cit.*) would include under the title of rheumatoid arthritis at least four different conditions, the relations of which to one another it is the purpose of this paper to analyze:

1. The children's disease described by Still.
2. The acute process occurring in young women.
3. The familiar multi-articular affection of middle-aged women.
4. The equally well-known malady of the aged.

Dr. Abrahams writes of Still's disease that "this is usually referred to as rheumatoid arthritis in children." This is a statement with which I can not possibly agree, and it is, therefore, interesting to note that he himself (Abrahams) continues that this reference is "a most unjustifiable attribution," since in his paper Dr. Still pointed out with the utmost care how the disease described by him differs from other arthritic diseases of childhood.

Still described this disease under the title of "a form of chronic joint-disease in children." He defined it as a "chronic progressive enlargement of joints, associated with general enlargement of glan and enlargement of spleen." The onset almost always before the second dentitio and is usually insidious, but may occ sionally be acute, with pyrexia, and po sibly rigors.

Finally, Still concludes that, under t head of rheumatoid arthritis in childre at least three conditions have been co fused, namely:

1. The joint disease described by hi self.
2. A disease identical with the rheum toid arthritis of adults.
3. A disease probably identical wi that described by Jaccoud as chron fibrous rheumatism.

I can not find grounds for Dr. Abr hams' statement that Still's disease commonly referred to as rheumatoid a thritis; it would seem to me to be f more probable that this disease, bearin in mind the glandular and spleenic e largements, has tubercular relationshi and might possibly be grouped with t condition recently described as tuberc lous rheumatism.

I shall myself describe the followi varieties of rheumatoid arthritis:

1. The rheumatoid arthritis of chil dren (*not* Still's disease, or chron fibrous rheumatism).
2. The rheumatoid arthritis of you adults (typically of women).
3. The rheumatoid arthritis of midd age.

The latter two types agree with I Abrahams' classification.

For that well-known arthritis of elder people, which is typically mon-articula which commences with bone chang (*i. e.*, fibrillation of cartilage and sub quent absorption at points of pressu and osteophytic outgrowth at points e ternal to pressure), I should wish to r serve the name of osteo-arthritis, reco nizing also that this condition is not e clusively confined to the aged, nor rhe matoid arthritis to the young and midd aged.

It will be convenient for the purpose my paper to describe here typical cases the forms of disease for which I reser the title of rheumatoid arthritis.

Acute Rheumatoid Arthritis.—Case A female, aged eighteen years. The ons

was at first gradual, but soon became rapid, affecting the joints of the hands and wrists, and later both knees. Three or four months after the onset the patient had an acute (febrile) attack involving other joints in addition to those already affected; this attack was called rheumatic fever. This acute attack subsided as regards temperature, but the articular condition only partially cleared up, and at the present time—only twelve months after the original onset of the disease—the patient is completely crippled and confined to bed. The joints chiefly affected are the knees and ankles, the elbows, and the articulations of the wrists and hands. There is great muscular articular wasting, and the patient presents the anemic and highly-debilitated appearance so characteristic of these acute cases. The quickened pulse and sweaty hands and feet are also present. The patient also presents the pigmentation of rheumatoid arthritis in a marked form, the whole of the skin having a dirty brownish tinge. The articulations affected present a fusiform thickening, which is evidently chiefly due to a pulpy synovial thickening. There is no evidence of osteophytic outgrowth, and but very slight and doubtful evidence of bone erosion. Both knee-joints contain a moderate amount of fluid. The heart is not affected.

This case may be taken as a typical example of acute rheumatoid arthritis, the patient becoming completely crippled within a few months of the onset. It is specially interesting in view of the fact that an acute exacerbation occurred some two months after the actual onset of the disease; this exacerbation was termed rheumatic fever, but on consideration of the future progress of the case it seems not unreasonable to hold the view that it was in reality an acute rheumatoid arthritis supervening upon a sub-acute condition.

In such cases as the above, we frequently get a history to the effect that the chronic state followed on an acute rheumatic attack. I wish to put forward the suggestion that in such cases the acute febrile attack is not acute rheumatism, but should be termed acute rheumatoid arthritis, the term chronic rheumatoid arthritis being reserved for those cases in which onset is definitely gradual. Rheumatic fever (acute infective rheumatism) is not usually followed by chronic arthritic troubles; typically, the synovitis of acute rheumatism absorbs without leaving more than a moderate amount of ligamentous stiffness, which is usually very amenable to massage and movements.

The history of the above case is very different, and points to a condition which may, I think, be properly termed acute rheumatoid arthritis. The patient's joints were affected from the first, and the arthritis never cleared up; there was no carditis of any form, and the patient had not the very typical sour sweating of rheumatism proper, though the sweaty palms and soles were well-marked. I do not, however, wish to imply that acute rheumatism is never followed by rheumatoid arthritis, but merely to point out that rheumatoid arthritis may often have an acute onset, and one should not fall to the conclusion, usually based on lay statements, that the original attack was rheumatic (here using the term rheumatic as being limited to acute infective rheumatism and its processes).

Sub-Acute Rheumatoid Arthritis.—Case 2. A female, now aged fifteen years. Some seven years ago she began to be affected with what were considered to be slight attacks of articular rheumatism. These attacks never entirely cleared up, leaving almost invariably a certain amount of articular swelling. This condition progressed steadily for the next few years, but there was no acute attack at any time. At the present time—seven years after the onset—the patient is still in fair health, but her articulations are considerably affected. Both knee-joints contain a fair amount of fluid, and the elbow and wrist joints, together with the digital joints, present the typical fusiform swelling. The heart is not affected. Under treatment, extending over two years, the disease has become reasonably quiescent, and the general health very fair.

This case is a good example of the steady progress of subacute rheumatoid arthritis in a child. Here, too, I should suggest that the slight exacerbations which marked the early period of the disease should be classed as mild attacks of

acute rheumatoid arthritis, and not as acute or sub-acute rheumatism.

In this case, definite bony grating can be felt in several joints, but the greater part of the fusiform joint swelling is due to synovial thickening and fluids. This case did very well under treatment with arsenic and iodide of iron. The condition was never very acute, the pulse not having marked rapidity, and the arthritic muscular wasting not being excessive.

The Chronic Rheumatoid Arthritis of Middle Age.—Case 2 exhibits fairly the condition occurring in children, and Case 1 the very severe type which typically affects young women. The condition as it affects middle-age is of a quieter character. It, also, usually affects women. In it, the pulse rates is usually quickened, and the palms and soles are sweaty, but the pigmentation is not severe, and the general constitutional effects are far less than the severe type of disease in young adults. Like the other forms of the disease, it is usually poly-articular, but may be mon-articular, in this respect forming clinically a half-way house to the disease of older life, which I call osteo-arthritis. This latter disease is typically mon-articular when affecting the large joints, such as the hip or knee; poly-articular as regards the small articulations. The primary pathological lesion appears to be a bony one, and commences with fibrillation of the cartilage, whereas in the condition which I term rheumatoid arthritis there is certainly considerable synovial thickening, though, undoubtedly, the bone is also later on affected, and the condition, if the patient survives, may run on to an arthritic appearance, not distinguishable from the chronic osteo-arthritis. Both of these conditions, that is to say, may lead in the end to a complete disorganization of the joint. But, in the early stages, there is a great and obvious distinction between the rapid progress with great constitutional disturbance, of the rheumatoid arthritis of young people, and the slowly progressive osteo-arthritis of the aged—a condition which is essentially degenerative, and more in line with the degenerative joint condition described by Charcot.

I draw the following conclusions:

1. That rheumatoid arthritis occu typically in children (as in Case 2); young adults (Case 1); and in mid age.

2. The essentially degenerative lesi which occurs in advanced age is bet known as osteo-arthritis, and this te should be reserved for such lesions.

3. That in cases, concerning whi one is given the history that the lesi was a sequela of acute rheumatism it w frequently be found on investigation th the febrile onset was in reality an acu rheumatoid arthritis.

In the space of a short paper it is n possible to enter fully into the numero relationships of rheumatoid arthritis. O may, however, briefly indicate some these.

Buzzard, in his article on tremor in t *Encyclopedia Medica*, states: "The fo diseases, neurasthenia, rheumatoid a thritis, paralysis agitans, and Grav disease, are purposely placed together, b cause they appear in more ways than o to be related, and to belong to a group which the pathology is still obscure."

The relationship of rheumatoid arth tis to Graves' disease has been well de with by Llewellyn Jones. The result his experience rather indicates that rhe matoid arthritis and Graves' disease fr quently co-exist than that there is a actual affinity. In cases noted by hi the thyroid swelling was usually of mo erate size, and certainly varied from tir to time. Tremor, in the complete typ was, as a rule, general, and often mo marked in the limbs affected with jo swellings. As regards ocular symptom —in addition to proptosis—the signs Stillwag, Von Graefe, and Moebius, t gether with slight ptosis and weakne of the external recti, were very mark in some cases; in others, less so.

He questions as to whether the rap cardiac action, which is a feature some early cases of rheumatoid arthrit is peculiar to this disease, or due to larval manifestation of Graves' diseas Llewellyn Jones also points out that it possibly significant that many of the s called secondary features of Graves' d case occur in the subjects of rheumato arthritis, and, moreover, in cases whe

ne of the cardinal symptoms of Graves' ease are present. Increased pigmen- ion is fairly common. Leucoderma d scleroderma are occasionally met th. Urticaria is also met with in both eases. Edemas, fixed, transient, and of egular distribution, are met with in h maladies. Disturbances of the di- stive system occur in both diseases, o menstrual troubles and leucorrhea. ilateral flushing, subjective feelings of at, excessive sweating and excessive aciation are also features common to h disorders.

Clinical research distinctly suggests ne obscure relationship between rheu- atism and rheumatoid arthritis, and es suggests that the following factors y determine this sequence in some es: (1) A fundamental element in the m of a neuropathic diathesis, in evi- ce of which he cites this co-existence h Graves' disease in some cases, and o the fact that in many other clinical tures it resembles diseases of nervous gin; (2) an accidental element in the sence of a possible source of toxemia or example, oral sepsis, chronic indi- tion, gastric ulcer, sometimes dilata- n of the stomach or chronic diarrhea, e throats, etc.

Chorea is another disease with which aves' disease enters into relationship, d the same may be said of rheumatoid hritis. The sequence is usually rheu- tism, chorea, rheumatoid arthritis, but author has known chorea to be fol- ed by rheumatoid arthritis without a vious history of rheumatism.

The question of the relationship of any to the involuntary spasms or mps met with in both rheumatoid ar- itis and Graves' disease is also dealt h, and it is noted that tetany has been orded by Maude in the latter disease. es has himself recently recorded the ilarity of the cramps of rheumatoid hritis to those obtaining in tetany, and ted that Chvostek's sign (increased chanical excitability of the nerves) is ily obtained in some cases. A general sideration seems to suggest the possi- ity of a cerebro-spinal toxemia under- ng rheumatoid arthritis, and one de- ed from many different disorders. sterior sclerosis was found by Tribou- let and James in a case of rheumatoid ar- thritis, and the same lesion occurs in er- gotism, a condition, according to some, closely allied to tetany.

Jones, in conclusion, in view of the fact that the part played by the thyroid gland in Graves' disease is still doubtful, and that this disease may precede, arise coincidently with, or possibly be engrafted upon, rheumatoid arthritis, suggests that these two diseases, when fused together, may be extensions of one and the same morbid process—that is, a toxemia.

The possibility of a toxemia underlying rheumatoid arthritis may certainly be considered, but recent bacteriological research has, in my opinion, established the respective origin of both rheumatoid arthritis and acute rheumatism. More- over, it is well, in endeavoring to form a correct picture of rheumatoid arthritis, to warn one's self against the danger of suggesting that the coincidence of multiple disease implies a relationship, *e. g.*, to base a relationship of rheumatoid arthri- tis to neurasthenia, Graves' disease, and paralysis agitans, on the occurrence of tremor as a marked feature in all these diseases.

Before concluding, a brief summary of the bacteriological researches with refer- ence to rheumatic and rheumatoid condi- tions is advisable; the more so in that the most important of these are as recent as 1902—that is, the work of Poynton and Paine.

In 1901, J. F. Poynton and Alexander Paine isolated a diplococcus from eigh- teen cases of rheumatic fever. They write as follows: "We have isolated the organism in these eighteen cases from various regions of the body—from the blood and urine of the living patient, and from the pericardial exudation, cerebro- spinal fluid, cardiac valves, the blood, the nodule, the pleural exudation, the lungs and urine, after death. * * * * We have grown it in the pericardial exuda- tion, and also in a medium of bouillon and milk slightly acidified with lactic acid, upon blood-agar, in ascitic bouillon, in milk rendered considerably alkaline with normal carbonate of soda, and in bouillon of high alkalescence. These lat- ter results, as we suspected, make it highly probable that the diplococcus de-

scribed by Wasserman, Westphal, and Malkoff, and isolated by them from a case of severe rheumatism, and the diplococcus described later by Meyer, are identical with ours.

"It has produced, on intra-venous inoculation into rabbits, pericarditis, valvulitis, pleuritis, pneumonia, and in one case also peritonitis, polyarthritis, bursitis, tenosynovitis, and in two cases nodules, chorea and weakness of the hind limbs, an acid urine loaded with urates, and infarcation, as well as fatty changes in the myocardium, liver and kidneys. The anatomical lesions in man and rabbits are identical. The organism is, as we have insisted before, a *minute diplococcus*, and will grow in a medium of slight acidity for long periods." (Trans. Pathological Soc. Lond. 1901.)

There is, therefore, definite evidence that rheumatic fever owes its origin to the above-mentioned diplococcus, and that it is best described as acute infective rheumatism.

Valuable work has also been accomplished with regard to rheumatoid arthritis. Some years since, Max Shuller described bacilli obtained from the fluid of the diseased joints. In 1896 Bannatyne, Wohlman and Blaxall, independently discovered in the blood and synovial fluid a short bacillus of dumb-bell shape, which Blaxall succeeded in cultivating.

More recently, Poynton and Paine have isolated a diplococcus, have cultivated it, and by injecting it into rabbits have produced arthritis. Their conclusions are worthy of summary:

1. A diplococcus was present in the synovial membrane of the knee-joint of a man aged sixty-seven, several of whose joints showed the chronic destructive changes recognized as occurring in one type of rheumatoid arthritis.

2. This diplococcus was isolated and cultivated in pure growth.

3. Upon two occasions, when injected into rabbits, it produced a severe arthritis, but no cardiac lesion.

4. The organism was isolated from the exudation produced in the joints of the rabbits.

5. In the second case a mon-arthritic resulted from the intra-venous inoculation.

6. This arthritis differed in type fr that previously produced (by the sa observers) with the diplococcus of rh matic fever.

It is, therefore, concluded that t diplococcus was the cause of the arthr in the case from which it was isolat and of the condition produced by exp ment in the rabbit. (Poynton and Pai Trans. Pathological Soc. London, 1902.

Of other observers, Chauffard and R mond in 1896, also isolated a diplobacil from the lymphatic glands and syno fluid, but did not obtain cultivatic Also, in 1898, Von Dungern and Schn der isolated a minute diplococcus fron case of rheumatoid arthritis, which l followed rheumatic fever. (This case c responds to the class for which I sho suggest the name of acute rheumatoid thritis.) This diplococcus when injec into the knee-joint of a rabbit, produ an arthritic condition, which the obser believed to be rheumatoid.

The evidence is that, both in ac rheumatism, and in rheumatoid arthri there is now direct evidence of infectiv —for which evidence we are chiefly debted to Dr. Poynton.

The organism, which may be cal the diplococcus rheumaticus, is a sm diplococcus, with a tendency to arran ment in streptococcal chains. It gro well in several media, not only in lac acid milk, as Dr. Poynton first thoug The discovery of an apparently simi organism, in rheumatism and in rheu toid arthritis, would lead one to expec very definite relationship. One of chief objects of this paper has been point out that such relationship is ev less definite than one had supposed. It probable that, shortly, one may expec differentiation of the organism of above diseases.

I have only been able to touch brie on a very wide subject. No mention been made of treatment, for the rea that a separate paper would be needed.

I have merely endeavored to write paper which, if failing in informati may possibly be found suggestive.

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[Written for the MEDICAL BRIEF.]

The Therapeutics of the Iodides.

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In this paper it will be my endeavor to ve an account derived from many years' actical experience of the medicinal uses the various salts of iodine, including a ief sketch of their pharmacological ac-ons.

Iodine and the iodides have a similar tion: the former is better adapted for odifying the general constitutional state in tuberculosis, whilst the alkaline io-des being more quickly passed out of e system, act better where some mor-d material needs elimination, *e. g.*, in philis, lead poisoning, or rheumatism. e potassium iodide is the salt most mmonly employed, but the depressing ects of the potassium, especially when ken for long periods, have led many to ploy the iodides of sodium, ammonium, strontium in preference.

Melsens found that mercurial com-unds were soluble in alkaline or neutral utions of iodide of potassium, and that rrosive sublimate, if fixed in a muscle tendon, could be dissolved out of the ganic tissue by soaking it in such a ution. He found that even metallic d was, to some extent, soluble in the ne medium, with the formation of a uble iodide of lead and potassium. He gued that in cases of mercurial or lead soning, with salivation, tremor, colic d palsy, iodides introduced into the od formed soluble compounds with the tal deposited in the tissues, and en-abled it to be taken up by the absorbents and passed out by the kidneys, salivary glands, the mucous membranes, and skin. Support has been given to this argument by the fact that an insoluble salt of mercury or lead may be administered to animals without evident effect until after the administration of an iodide, when symptoms of poisoning appear. We know, clinically, that in metallic cachexia, when active symptoms are no longer present, and the poison can not be detected in the secretions, if an iodide be given symptoms of acute mercurial or lead poisoning may be developed, and that foreign substances may be found in the urine. Chronic conditions of illness, such as palsy or cachexia, may be present when the use of the iodide is commenced, but in the course of a few days acute symptoms, such as colic or salivation, may be reproduced until elimination is complete.

The case of M. Faure, recorded by himself, is a good illustration of the value of iodides in cases of lead poisoning. Engaged in white lead manufacture, he suffered severely from symptoms of plumbism, and cured himself with iodide of potassium. He remarks that he could tolerate the drug better when he took it before, than with food, which he attributed to the "fasting stomach being coated with mucus."

I have had very good results with iodides in cases of plumbism, the best being obtained in conjunction with purgative treatment. The metallic iodide is excreted by the mucous membrane of the alimentary canal, and should be immediately removed to prevent its re-absorption; hence the necessity for counteracting the constipation which so frequently accompanies this condition. A good formula is:

℞ Magnesii Sulphatis.....30 grains.
Potassii Iodidi..... 5 grains.
Aquæ Chloroformi..... 1 ounce.
M. Sig: To be taken every four to six hours.

Iodide of iron is valuable in later stages.

It is probable that iodine acts in syphilis much as it does in metallic poisoning, by assisting the elimination of a morbid material. It has been maintained that its influence is best seen in cases which have been previously treated by mercury; but there can be no question that the drug has curative powers of its own, independ-

ent of mercurial action; they are evidenced in the later, or tertiary stages of constitutional syphilis, when either the mucous membranes are affected, as in deep ulceration of the fauces, or the bones are attacked with periostitis or nodes, or the skin is affected with rupial or lupoid eruption, or the meninges are thickened, or gummatous deposits are formed in the viscera. In such conditions it acts better than mercury, although this latter drug is preferable in iritis. In a certain proportion of undefined syphilitic cases, an iodide and mercury together will give better results than either medicine alone.

By causing the absorption of deposits and thickenings in various parts of the body, iodides relieve many resulting symptoms, such as those due to pressure on different portions of the nervous system, nocturnal pains, neuralgia, paralysis, dullness of sense or intellect, and convulsive paroxysms. The dose of iodide of potassium is a matter of much importance, and need be limited only by the susceptibility or idiosyncracy of the patient, and the progress of the disease; it may vary from one to two grains up to sixty grains two or three times daily, and the best results have sometimes been obtained from heroic doses, one-half to two ounces daily, when ordinary ones have failed. Personally, I am not in favor of the administration of large doses.

Graves was one of the first to point out the value of iodide of potassium in rheumatism, and it is now well established. I connect its efficient anti-rheumatic action mainly with an eliminant action through the kidneys, and to promote this, recommend it to be largely diluted and combined with bicarbonate of potassium. To lessen irritation of the stomach, the medicine may be given in an effervescent form. Sometimes if the patient is feeble, and the urine abundant and of low specific gravity, the iodide may be combined with hydrochloric acid and quinine, or given as hydriodic acid. In cases of chronic rheumatism, small doses of iodide, continued for a long time, act exceedingly well, but some patients are very sensitive to its physiological action, and need special care to secure its toleration. The use of iodide of potassium is now mostly limited to chron cases, or to those acute cases where dium salicylate can not be tolerated.

I have had several cases of meningi which derived much benefit from iodid given alone or in combination. A chi aged six years, who had been ill for eig days, and was insensible, with dilated pils, dysphagia, paralysis of one side, a convulsive twitching, and who had be getting worse under previous treatme began to improve soon after commenci potassium iodide, given in ten-grain dos every six hours, with five minims of ti ture of belladonna in the intervals. covery ultimately ensued, and the b has now reached adult age.

In another case, aged eight years, the was pain, vomiting, delirium, unc sciousness, convulsion, dilated pupils, t anic stiffness of the neck muscles, gri ing of teeth, difficult respiration, slo weak pulse, and every sign of fully-d veloped meningitis, yet recovery to place under potassium iodide and bel donna.

Leared recorded a case of recove under five-grain doses of iodide of pot sium when other remedies had been us without relief. He was satisfied as to t diagnosis of tuberculous meningit Trousseau and many physicians of ex rience deny that the tuberculous form curable under any circumstances, a certainly a large majority of such ca end fatally.

In the sub-acute and chronic stages bronchitis the iodides relieve by an alt ative action on the bronchial muc membrane, thinning and ultimately dim ishing the muco-purulent tough secreti and so rendering expectoration easi They may with advantage be combi with antispasmodics. Potassium iod should be given for this purpose in do of three grains; but in weakly subje the iodide of ammonium, in doses of fr five grains every four hours, acts bett When there is an increase of tempe ture, aconite should be given in doses five minims every two to four hours. an expectorant be required, tartar eme should be chosen; the dose should small and frequent, and care should taken to avoid emesis or undue depr sion.

I have known iodide of potassium to re-
eve many asthmatic patients, and it is
ie main ingredient in a secret and suc-
essful remedy for asthma. Trousseau
nd Jaccoud speak of its value, and Sée
as recorded valuable observations upon
venty-four cases watched for a long
me. Four of these were children, four
d people, the others adults; the daily
ose varied from twenty-two to forty-five
rains, being reduced as improvement
rogressed. If given some hours before
e usual attack this was often prevented;
given during it, respiration was ren-
ered free in one to two hours. Chronic
sthma with emphysema was also bene-
ted by the remedy; inhalations of iodide
ethyl, ten drops several times daily,
nd the occasional use of opium or chlo-
l were with advantage, conjoined with
e treatment. Hyde Salter observed ben-
it from iodide of potassium in full doses
fifteen to thirty grains—every two to
ur hours, in very diverse cases of
sthma. I think that such attacks as are
onnected with catarrh, and are relieved
free secretion, and in which the nerve
mptoms are reflex rather than primary,
ow the best results from this remedy.
have known it to be efficacious in
sthma connected with amenorrhea and
erine congestion, and also in the asthma
rheumatic and gouty subjects. In an
teresting case in a rheumatic patient,
e asthmatic attack was relieved by four-
ain doses of iodide, but severe pain in
e region of the kidney followed, with
cretions of scanty acid urine; this oc-
rred more than once, and was only re-
ved by producing free excretion of al-
line urine by appropriate remedies. In
is case the drug was supposed to cause
nal congestion by increasing the ab-
rption of waste nitrogenous material.

In cases of thoracic and abdominal
neurism, in which surgical treatment is
possible, the clinical results obtained
potassium iodide should not be ig-
red. Nélaton recorded marked relief of
e signs and symptoms of an innominate
neurism under the use of this remedy,
hich he gave empirically at the request
the patient, and Bouillaud, following
this clue, obtained good results in
neurisms of the carotid and thoracic ves-
ls. Chuckerbutty, in Calcutta, pub-
lished an account of three cases which were relieved; in one of these the aneurism was already projecting through the sternum when the drug was commenced.

It is to Dr. G. W. Balfour that we are most indebted for drawing attention to this subject. He summarizes fifteen cases, all of which, save one, were relieved, and in twelve the external tumor was actually lessened, and the sac partly consolidated. In one of his earliest patients the bulging, which was evident between the second and third ribs, disappeared after a few weeks' treatment with thirty-grain doses thrice daily, and this dose was continued for nine months "without any unpleasant symptoms," but with complete subsidence of aneurismal suffering. The same man had not improved under previous doses of twenty grains, and Balfour points out the importance of pressing the drug to saturation before considering it inert. It is quickly eliminated—large doses within two or three days—and many of his patients took thirty grains several times daily. In a few, coryza and headache were produced, but, as a rule, no worse symptoms were caused by large than by small doses. Suckling has contributed an additional series of twenty cases treated by potassium iodide in doses of ten grains, increasing to sixty grains, combined with Tufnell's diet; of these twelve were benefited, but he notes that in several the pulse rate increased, and the drug then disagreed. Referring to these cases, Balfour points out the necessity of regulating the dose by the effect on the circulation. After some days in bed the patient's normal pulse should be ascertained, and doses of ten grains commenced, and then later increased to fifteen grains if the pulse rate remain unaltered, the object being to lower blood pressure within certain limits. Although in his early writings on the subjects already quoted, Balfour was inclined to attribute to a sedative action on the nervous system the good effects of the drug, he has, for some time past, traced them rather to lowering of blood pressure, consequent on dilatation of the arterioles, and some depression of heart action; following this more resisting power develops in the sac, the coats of which tend to hypertrophy, and

so to cure; whilst if the nutrition be unduly lowered by starvation diet, or by excessive doses of iodide removing albuminates from the system, the hypertrophy is hindered; if the pulse quickens under iodide, he concludes that tension is unduly lowered, and the dose too large.

In contrast with these observations must be noticed a very careful series of experiments on the blood pressure in rabbits after intravenous injection of potassium iodide; also of records of pulse rate and tension on patient's taking full and large doses of the sodium and potassium salts by Drs. Stockman and Charteris, which lead them to the conclusion that " these salts when given to man by the stomach in ordinary doses have no direct depressing effect on the action of the heart, or on the blood pressure in the arteries" (*B. M. J.*, November, 1901). If sometimes weakening and quickening of the pulse follow their use, it is an indirect effect due to increase of, or change in, the iodine containing thyroid secretion. With regard to their clinical value in aneurism, whilst quoting Rosenbach, of Berlin, against it (Drs. Heart, 1893), they acknowledged that almost universal experience is in their favor; certainly mine is.

In cases of chronic endocarditis, and arterio-sclerosis, hypertrophy, and even fatty degeneration, relief may often be given, especially to the anginal attacks and dyspnea by a steady course of various iodides. Of course, as Charteris remarks, in long-standing cases dependent on factors continuous in action, their cure can not be reasonably expected and adjuvants of rest, diet, etc., must be secured, but under favorable conditions the drugs may be very valuable. Germain Sée, Laborde, and others, have recorded illustrations. Dr. J. B. Nichols (Washington) concludes that they arrest or retard the earlier symptoms, and ameliorate later by an alterative action, not only anti-syphilitic (International Clinics, 1904). Biering again recommends them in the sclerosis of gastric and intestinal vessels. Powell mentions it as valuable in angina pectoris "to reduce arterial pressure." Mott advises it as most useful when arterio-sclerosis is well marked. Sansom combines it with heart tonics, "to unlock the arterioles," *i. e.*, to lessen tension, and wherever there is thickening of arteri walls, gives a long course of iodides.

In a recent paper published in conjur tion with Dr. Charteris, Professor Ral Stockman shows that the action of t iodides on the circulation is not dire but is due to increased formation of t iodine containing thyroid secretion, whi exerts a powerful effect, both on the c culation and on metabolism.

The iodides are readily and rapid eliminated by the different secretion and may be detected in the saliva, t buccal and bronchial mucus, the tea the milk, the perspiration, the urine, a even the serum of joints. R. W. Tayl has reported evidence of elimination iodine by the skin in the case of a m with pityriasis, who took large doses the potassium salt whilst wearing starched shirt; he had profuse perspi tions, and a dark coloration, due to t formation of iodide of starch, appear on his back. In another case of a m taking ten-grain doses for syphilis, n only the linen, but the hair became c ored brown.

It is probable that almost all the iodi taken is excreted in the urine, for Sch lau recovered from that excretion thr hundred and forty-five centigrammes o of three hundred and fifty, and, accordi to Melsens, very little can be traced the feces, the iodine that is excreted in the intestine being absorbed again by t lining membrane before it reaches t rectum. Rabuteau found a small quanti in the feces, so long as it was present the secretions; if diarrhea occurred t quantity was notably increased. Ehle concluded that doses above twenty grai are not completely absorbed; of th quantity he found seventy-five per ce eliminated.

The rapidity of elimination varies wi the quantity taken, a large dose givi evidence of its passage very quick Ranke found traces in the urine thr and a half minutes after administrati and even sooner in the saliva. Nothnag also found it early, in ten minutes in t latter secretion. Richardson found it the urine within one minute of injecti tincture of iodine into an enlarged bur and three minutes after breathing iodi of ethyl iodine could be detected in t

ine. It is an important practical point at the elimination of this drug is completed sooner than that of many others. alfour noted that even if large doses of otassium iodide had been taken for any weeks, their elimination was complete within three or four days after ceasg to take them. Rabuteau, after fifteen ains, found traces in the urine for ree days; after one hundred and fifty ains, for ten days, not afterwards. The reater part was eliminated during the st day, little passed on the second, and arcely a trace on the third: in the dog, imination was somewhat slower. Speck ates that in Bright's disease the kidneys not eliminate iodine. Desprez gave otassium iodide subcutaneously, and succeeded in recovering two-thirds of it subquently from the urine, its earliest apearance in that secretion occurring enty minutes after the injection. He und that febrile conditions and disease the kidney delayed the appearance of e salt in the urine, prolonged the period uring which elimination occurred, and the case of Bright's disease, instead finding two-thirds of the drug in the ine, he found only a quarter, a sixth, d even an eighth. Bachrach, giving oderate doses of potassium iodate by e mouth to healthy subjects, and to ver patients, traced the drug in the ine of both within fifteen minutes, but injecting it under the skin, elimination the former occurred in five minutes, d in the latter forty minutes later.

The earliest and most marked evidence the constitutional action of the iodides furnished by irritation and catarrh of e mucous membranes. It is shown ostly in the throat and bronchi, the nose d eyes, parts that are exposed to conct with carbonic acid gas, which it is pposed decomposes the iodide as it is iminated, so that free iodine exerts its cal irritant effect. The irritation shows self by pain and sense of pressure over e frontal sinuses, edema, prickling, and eat about the nose and eyes, with sense stuffiness and discharge like that of ordinary coryza. The dose that will proce these symptoms varies a good deal ith different persons, some being acutely ffected by one or two grains of potasum iodide, others not by ten or even twenty grains, continued daily for a long time; in fact, raising the dose will often stop the symptoms. Ammonium iodide, it is stated, is more liable to cause iodism than the other salts, because it is more easily decomposed in the body.

The phenomena described, as well as the skin eruptions caused by iodides are included by Dr. D. Walsh in the term, "excretory irritation" (Baillieu & Co., 1897), *i. e.*, "disturbance set up by the eliminatory passage of the internal irritant through the essential cells of the excretory organs." He states that any drug or internal irritant that inflames the skin may be suspected of inflaming other excretory outlets, and such drug must be administered with great caution (pp. 48, 49).

Much disturbance of the nervous system sometimes follows the full action of the iodides. It is marked at first by excitement with restlessness, tremor, anxiety, and insomnia, but this state is liable to be succeeded by feebleness and depression; these symptoms are possibly due to increased thyroid secretion. Toxic doses have caused violent headache and sometimes convulsion. Rilliet described neuralgia, tinnitus, disturbed intellect, and convulsions, as prominent symptoms in some cases of iodism, but these are of exceptional occurrence. Trigeminal neuralgia has also been reported, but I have rarely met with such cases. Altered vision and paralysis were noted by Brodie. "Occasional hyperesthesia and temporary palsy of lower extremities" occurred in a man who was taking very large doses (ninety grains thrice daily) of potassium iodide. Such symptoms, however, must be considered rare, for H. Wood states that he has seen the nervous system affected only once, even "with enormous doses," and then the patient, who had been taking two hundred and seventy grains daily, became intensely sleepy and stupid, as if under the influence of bromide. Extreme depression is not an uncommon effect of even small doses in sensitive subjects, and sometimes compels the disuse of the drug.

Binz experimented with the sodium iodate and found that in large doses this salt caused narcosis in animals. It proved especially poisonous to the respiratory

and cardiac centers, and he suggests that both this salt and iodoform are decomposed, and liberate iodine in the brain and cord. Many years ago Reuger & Murrell, experimenting on the frog's heart, demonstrated by a series of tracings that potassium iodide exercised a much more depressing effect on the cardiac centers than either ammonium or sodium iodide.

[Written for the MEDICAL BRIEF.]

Medical Paris.

BY ALBERT SMITH, M. D.,
Paris, France.

In the MEDICAL BRIEF, of March, of the present year, there appears an article on post-graduate teaching in Paris, from the pen of Dr. Le Mare Bunch, whose familiarity with the subject of which he speaks is known to all. My only excuse for intervening in the discussion is that I too have passed many months in Paris studying at the various hospitals, and in special departments, and it seems to me possible that I may supplement the information already given by certain details which may be of use to intended American visitors.

In the first place, it is well to point out that Berlin and Vienna have no longer a monopoly of post-graduate instruction, and that their popularity in this particular connection is on the wane. They are, it is true, great medical centers, and in both there is ample wealth of material for clinical instruction, but they do not stand alone in this respect, and equally good cases, just as ably demonstrated, and with the same elaboration of detail, can be seen both in London and in Paris. It is probable that there are more good clinical teachers in France and England than in Germany and Austria, although this is a mere expression of opinion not susceptible of proof.

The great attraction of Berlin and Vienna to Americans in the past was that many short courses of instruction, especially during the months of August and September, were given in English. Medical men are not, as a rule, good linguists, and are too fully occupied with their purely professional work to become ad in French or German. The younger man teachers recognized the fact, laid themselves out to give instructio English, more or less intellige France, more conservative, relying on renown of the great Paris hospitals, the large number of students attracte the excellence of the teaching, was keen in catering for visitors and graduates from other countries. Du the last few years, however, there been a gradual alteration in this res and nearly all the coming men in P make a point of acquiring a conv tional knowledge of other languages, especially of English. It is a distinct vantage for visitors to have, at all ev an elementary knowledge of French, the fact of not being able to spea fluently or readily, can not be rega as a disqualification.

Much depends on the season of year in which the visit to Paris is The winter is often bitterly cold, an the houses are not warmed as they in America, the climate will be f somewhat trying. August and Sep ber are the hot months, but alth Paris is hot enough in August, it very different kind of heat to that perienced in, say Washington, at the s period of the year. May is the ideal t when not only Paris, but the surroun country, is at its best. The latter en September and the early part of Oct are delightful.

In the matter of hotel accommoda and cost of living there is endless ety. You may live luxuriously in the appointed hotels in the world, or, on other hand, you may be accommod comfortably, and for a very small penditure. The hospitals are not in center of fashionable Paris, but at little distance. The man of means find excellent hotels in the neighbor of the Rue de Rivoli, or the Rue Honoré, whilst the modest student meet with cheaper, although pos equally comfortable rooms in some o smaller hotels in the Quartier L Cabs are plentiful in Paris, and f couple of francs, less than half a d one can drive in an open carriage one end of the city to the other.

mnibuses and the electric tube will be ound a great convenience.

The stranger in Paris who wishes to ake any length of stay, and to visit the ospitals, should come armed with proper troductions and credentials. His first ep should be to present himself to Monieur G. Mesurer, Directeur de l'Admintration Genérale de l'Assistance Pubque, who will furnish him with an auorization. It may appear but a formaly, but it is one which should be obrved.

It is impossible to see the whole of the aris hospitals in a few days. They are idely scattered, and it is difficult to sit more than one in the day. In a eek, however, much may be seen, but ree weeks or three months may be ofitably employed. The visitor should ake up his mind at the outset what it is wishes to see, be it medicine, surgery, some special branch. Facilities in all partments are ample, but it is impossie to accomplish everything in a short ace of time.

There are one or two guides to the aris hospitals in English, but the most mplete work on the subject is Lavarne and Jayle's "L'Æsculape" (1905), a lky work of some eight hundred pages, ofusely illustrated. It contains a mass detailed information, and deals not ly with the hospitals, but the regulaons for obtaining degrees, and for the rious valuable prizes offered by the aculté de Médicine.

It is of interest to note that in Paris e number of beds available for the sick twenty-nine thousand, maintained at a arly expense of sixty-six million francs, roughly thirteen million dollars. On average, the daily cost per patient is ree and three-quarter francs, which mpares favorably with the expenditure most of the London hospitals. This onomy is, to a great extent, the result centralization, all hospitals being tered for at a Central Bureau. By this mbination of forces, provisions are obned at the lowest possible prices. ery day there runs into Paris a traind of oxen, sheep, and other animals, to slaughtered at the "Boucherie Centale." The less valuable portions are reied at a low rate to the poor, whilst the prime joints are distributed to the hospitals. The same system of buying wholesale, and in the cheapest market, applies to bread, butter, vegetables, eggs, wine, and even bedding, linen and clothing. Those interested in hospital administration will find much to admire in the attention given to detail in these matters. Another feature of French medical life is that no patient is ever refused admission to a hospital because the wards are full. The number of beds is elastic, and "extra beds" are put up as required. Sometimes in the winter months they are so close together that it is difficult to pass between them. The wards are, as a rule, large and lofty, and even at times of greatest pressure the air is not foul.

The duration of the medical course for students is five years, but many stay on two years longer as "externes," doing the ordinary work of dressers and clinical clerks. From these are chosen by competitive examination the "internes," or assistant to a "chef de service," that is, a physician or surgeon with wards. These internes live and board in the hospital, and are responsible for the care of the patients in the absence of the chief. They have considerable liberty of action, and are a privileged class. Many of them are men of forty years of age, and of more mature experience than the average house physician or house surgeon in London. It would be impossible to retain the services without pay or emolument of such men if they were subjected to vexatious restrictions. They can invite their friends as visitors to the common table, and are practically free to do as they like, provided that there is no interference with their duties.

Coming now to practical points, the first visit may well be made to the Hôpitre Saint Louis, an old and fine architectural building, which owes its origin to the plague. It was established in 1610, and contains one thousand two hundred and twenty-one beds. The visit should be made at half-past nine in the morning, and in case of difficulty it would be as well to ask for Dr. E. Gaucher, who has charge of the Salles Saint Louis and Henry IV, a clinique comprising forty-two male and forty female beds. In a couple of hours, under the guidance of

the professor, a better collection of rare and interesting cases will be seen than ordinarily falls to the lot of the average physician in a lifetime.

Here syphilis is represented in all forms and varieties, and scores of cases are exhibited, each of which is a veritable curiosity. Side by side with these will be found cases of rodent ulcer, melano-sarcoma, elephantiasis, ichthyosis, Paget's nipple, and many diseases, the names of which are hardly familiar to the average physician. The cases speak for themselves, but each is clearly demonstrated in a few pithy sentences, which leave a lasting impression on the memory.

The electrical installation at this hospital has been brought to the highest pitch of perfection, and cases are treated with X-rays, high-frequency current, and all the most recent additions in this special development of therapeutics. The Museum Baretta contains a marvelous collection of casts, the mere examination of which in itself is a liberal education.

Another morning may profitably be devoted to the Salpêtrière, the old buildings of which date from the seventeenth century. It contains 3,834 beds, and it was here that Charcot carried on his lifelong work.

Inquiry should be made for Dr. Raymond, who gives practical lectures on nervous diseases.

Dr. Déjarine's clinique should be attended, and in his wards will be found a number of cases treated almost exclusively by suggestion, and without hypnotism. This is one of the most interesting cliniques in Paris, and no one who has an opportunity of witnessing the excellent results obtained, can fail to be impressed by the strong personality of the professor.

Another morning should be devoted to the Hotel Dieu, a hospital which receives fifteen thousand patients annually. Dr. Dieulafoy lectures every Saturday morning at eleven o'clock, and his lecture is always largely attended both by men and women, students and doctors. He is a fluent speaker, and his action is dramatic. He has a marvelous power of imparting instruction; every fact is driven home, and even if one were ignorant of the language it would be impossible to fail to grasp the tenor of his remarks. On th surgical side is Dr. Lucas Championnièr who speaks English fluently if not accu ately.

It is impossible in the space of th short article to indicate all there is to b seen in Paris, but with this foundatio some progress will have been made, an Saint Antoine, Gochin, Lariboisière, an other hospitals will follow in due cours The most modern hospital in Paris is th Boucicaut, which is well worth visitin It is only necessary to mention L'Institu Pasteur and its annexes, for here will b found the most modern development o experimental research. The Dispensair Antituberculeux of MM. Jacques Siegfrie and Albert Robin, in connection with th hospital Beaujon, is well worth visitin and the stranger may esteem himself fo tunate if he can do so under the auspice of Dr. R. Blondel. Permission might po sibly be obtained to visit the physic therapeutic establishment of Dr. J Rivière, 25 Rue des Mathurins (Opéra).

Paris is a mine of medical wealth, an more can be seen there in a week than i any other city of Europe in a year. Th following are the chief general hospital in Paris, with the number of beds i each, exclusive of extra beds: Hote Dieu, 885; Pitié, 680; Charité, 654 Saint Antoine, 865; Necker, 478; Cochin 809; Beaujon, 608; Lariboisière, 990 Tenon, 947; Laennec, 618; Bichat, 196 Andral, 96; Broussais, 275; and th Boucicaut, 254. The hospitals for cutane ous and syphilitic diseases are Saint Loui and Broca. The lying-in hospitals are th Maternité and the Clinique Tarnier. Th children's hospitals are the Enfants Ma ades, Trousseau, Bretenneau, and Herold

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[Written for the MEDICAL BRIEF.]

The Physician and the Philosopher

BY B. M. JACKSON, M. D., LL. B.,

Omaha, Neb.

'Tis not wit merely, but a temper whic must form the well-bred man. In the same man ner, 'tis not a head merely, but a Heart and Re olution, which complete the real Philosopher.- *Shaftesbury*

I have used a wrong title for this arti cle, because life is so strenuous, do no you know? It should have read, "A Heart

»Heart Talk With the Old Folks, Mid-
le-Aged Folks, Young Folks, and Babies
f the MEDICAL BRIEF's Family." I shall
ot now stop to explain the reason why.
othing would afford me as much pleas-
re as a weekly—even daily—talk to my
rothers and sisters of the medical pro-
ssion, and especially to those who con-
nt themselves within the family circle
the MEDICAL BRIEF. It is a great fam-
, indeed! And let me tell you, my
ethren and sisters, I know of no other
herein I can find as much consolation
d happiness as I do find within that
the MEDICAL BRIEF. I have tried my
rdest to content myself within other
edical circles, but for some reason or
other I did not succeed. I feel so much
ore at home here. So much so that I
n tempted to offer a "resolution"—some
you know how much I cherish to hear
is word—to the effect that we meet
ce a week hereafter, instead of once a
onth, as we do now. We could easily
complish this by requesting our beloved
ther, Dr. Lawrence—may he never die
to call us together oftener. Let him
arge us a V annually for the privilege,
is worth the price. Consolation and
ppiness are worth any price. There is
e obstacle, however, which induces me
postpone consideration of the resolu-
n, and it is this: some so-called re-
rmer may charge the fountain-head of
r family with making money. "Re-
rmers," you know, do not like to see
hers make money, for they are badly
need of "filthy lucre" themselves.
eaking of "reformers," reminds me of
he little father" of all the Russians.
e is just now trying (Ahem!) to "re-
rm" some evil conditions prevailing in
s bailiwick. Yes, these "reformers" are
eat people! They always work "for the
nefit of others." Witness Dowie, Elijah
, for instance, and the myriads of "re-
rmers" within our own profession. Every
eformer" is trying to make use of all
e words in Webster's dictionary to in-
ce us to follow "him," that he may
egulate" us. He works for "our" ben-
t, do not you know. He needs our
oney and liberty, and needs them badly.
npty your pockets and ask your respec-
e legislators to enact some more laws,
ys and girls. Speaking of laws—rather
the craving for them for the purpose of regulating the other fellow—yes, remember that some of us agree with the "reformer" that the other fellow must be regulated and "not us." Oh, no; not us (Ahem!), the other fellow, has led me to discover and name a new kind of mental disease, viz: Lawmania. Lawmania is an insane desire for laws to regulate the other fellow. It is due to a microbe known as sophistrycoccus. The disease is contagious and infectious. Remedial measures are known to a few, but it seems that the majority of physicians would rather die professionally than resort to specific treatment.

In the last few issues of the MEDICAL BRIEF, there appeared opinions concerning the treatment of lawmania, and at the risk of being mobbed, I shall ask: Are physicians acquainted with the pathology and morbid anatomy of that disease? In other words, are physicians masters of "the games of Law and Politics," hence able to offer remedial measures? If they are, their opinions may have some weight, and if they are not their opinions are practically valueless. Some physicians expressed opinions to the effect that we ought to have a Federal law "regulating" the practice of medicine; others doubted the wisdom of such a law, preferring State regulation, and still others prefer no regulation whatever. Now, if three doctors disagree, who shall decide? Obviously, one who knows more about the subject in dispute. Suppose that the subject in dispute is a disease with which physicians are more or less familiar, but they are unable to cope with it successfully, what is to be done? The only thing to do is to deal with it as best we know how, and trust to the inevitable. Suppose, on the other hand, that three, or more, physicians disagree about a subject foreign to their profession, what should they do? Obviously, ask for the opinion of one who knows something about the principles involved in the subject in dispute.

Now, suppose that a stranger overheard the dispute, and he is himself interested in the subject, may he not hazard an opinion voluntarily? I think he may. "Providing he is more competent than we are," you say. Granted. The writer

feels more or less competent to give an opinion, basing his competency upon the fact that he used to practice "the game" of law in State, as well as Federal courts, by virtue of licenses granted to him for that purpose. Before I do so, however, I must beg you to bear with me in order that we may ascertain the gist of the subject in dispute. Now, what is the subject in dispute? Law. What kind of law? Statute law. What is wanted with statute law? To regulate the practice of medicine. Are you sure that statute law is wanted for that purpose? Have not you now in every State, statute laws regulating the practice of medicine? "But we are dissatisfied with these laws, and we want a 'Federal law' instead," you say. Ahem! I see! You are dissatisfied with the statute laws of the several States, and you are anxious to replace them with one Federal law. Ahem! Let me tell you, boys and girls, this is the reason why I should have used the other title for this article. You all talk about wanting this, that, and the other law, in spite of the fact that none of you know the principles involved in that subject. The "game of law" is a most intricate one, and he who does not know its theoretical principles and practical side, should leave that game severely alone.

When you venture into a bucket-shop and offer your good coin as a margin on some real or imaginary stock, you have one chance in a hundred to win and make a profit; but when you venture into a legislative shop and offer your liberty and independence as a sacrifice, you lose them forever. I do not blame you for feeling dissatisfied with the laws of the several States, but your craving for a Federal law deserves the most rigorous censure. Yes, you deserve not only a scolding, but a sound threshing; for you are no different from a child which has been playing with burning matches, and because of a dissatisfaction with their slight combustion craves for the burning anthracite in the furnace. Do you want to jump from the frying-pan into the fire? It is queer! It is queer! Take my advice and leave "the game of law" severely alone, and study methods of escape from the frying-pan in which you are being roasted alive. I hope you will not charge me with impertinence for asking the f lowing question: How come you to placed in the frying-pan? Have you ask to be placed therein in order to expe ence the exhilarating effects of roastin In other words, have you asked for the actment of the statute laws with which y are now dissatisfied? A voice: "Yes, the purpose of regulating the practice medicine, but not to impose hardships us, nor to deprive us of liberty and in pendence." That is it. Well, let me t you a secret. Upon due and deliber consideration I have come to the conc sion that the laws never have regulat and do not now regulate, the practice medicine, and were never intended to so. The laws have been enacted for t purpose of using them as a club on y and they are so used. I have carefu studied the letter and spirit of every m ical registration law and, in my opini as now enacted, their main object is deny to physicians freedom and in pendence and to impose on them all kin of hardships. If the individuals wh you asked to represent you in legislat shops for the purpose of enacting la regulating the practice of medicine h done their duty, there would have be neither money in their pockets nor p tical power in their hands. What th were after was money (fees) and politi power, and in order to have both th enacted the present laws. If you are a ious for laws regulating the practice medicine only, you must ask for la which will do that. The present regist tion laws impose all kinds of hardsh on and deny freedom and independen to physicians, but they do not regul the practice of medicine at all. Now law which shall regulate the practice medicine only, should be passed in ea State, and provided (1) a board compos of three county school superintender or still better, a board of three profess of different colleges, none of which h a medical department, which board sh pass on the preliminary educational c dentials, lacking these to examine in c tain subjects would-be M. D.'s; (2) board of physicians, to be composed one allopath, one homeopath, and one lectic, who shall keep a record of the ti of entrance and graduation of a stude

owing that he has attended three or ır years, and (3) this board of physi- ans may, if they see fit, examine the nior students, previous to graduation. rsonally, I do not see the necessity for e third requirement. We must remem- r that human nature is afflicted with merous shortcomings, hence with re- rd to a newly-made M. D.'s qualifica- ns, it does not matter whether he is amined by his professors or some other ysicians; for, whether he really is qual- ed or not, time alone and results at the dside can tell. Do not delude your- ves with the belief that examinations close qualifications; they do cause rvous prostration, and that only. A deral law regulating the practice of edicine will necessarily create a bu- aucracy with all kinds of power over e medical profession, and against just ch boards the Russian people are in volt just now, and have been for cen- ries.

Power is power, and if you centralize in the hands of one set of men it is ed much more vigorously, and is much re oppressive than when the same wer is distributed among a number of s. The chief concern of physicians ould be how to take away the power m the hands of the numerous medico- itical sets extant—boards of medical aminers. No set of physicians are en- ed to power over their brethren, and e present medical registration laws ve created that set and endowed them h power. It will be just as difficult for n to take away the power from the ards of medical examiners of the sev- l States as it is for the Russian people take away the power from their oppres- s. People cast away their liberties as sily as one strikes a match, but ages st elapse and oceans of blood must be lled before they can be regained. Peo- care nothing about history, be it even ntemporaneous. No; they want mas- s to reform the other fellow. How pid! How stupid! "He who reforms nself has done more towards reforming e public than a crowd of noisy, impo- t patriots."—Lavater.

8 N. Y. Life Building.

[Written for the MEDICAL BRIEF.]

Surgical Treatment of Certain Malformations of the Vagina.

BY CHARLES A. L. REED, A. M., M. D.,

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It has fallen to my lot to have an unusually large percentage of cases of imperforate vagina. I have referred to my notes covering only the last eight years, and find that I have had twenty-two cases of atresia, including such cases as are ordinarily classified under the title of imperforate hymen. A number of these twenty-two cases should be designated as incomplete atresia, for the reason that the closure of the vaginal canal involved only a certain segment of the structure between the vulva and the uterus. In three cases I have had complete atresia, which is to say that the patients each presented a fibro-muscular cord extending from the vulva to the uterus, and lying along the septum, between the urethra and the rectum. In one case only have I had complete absence of the vagina, a case I shall allude to *in extenso*.

My motive in discussing these classified conditions is to call attention to certain features of technique which I have found useful in restoring the parts to the condition Nature designed; and it should be borne in mind that the amount of detail in these comparatively trivial operations is an exceedingly important question, and upon its solution depends the success or failure of the case. Thus, I recall in my very early experience, two cases of simple imperforate hymen resulting unsatisfactorily. This unsatisfactoriness did not consist in the fact that I was able to open the vaginal canal and drain away the accumulated menstrual fluid, but in the fact that having employed a simple puncture for this purpose I left *in situ* a cartilaginous band which, in two cases, produced such a degree of stenosis that secretions were retained, and in the other instance made it impossible for the patient to sustain the marital relation. Basing my practice upon this

experience, I have made it a rule to cut out a zone of tissue corresponding to the zone of atresia, and to bring the margins of the membrane together from above to below, and to secure them by interrupted suture. Even after having done this it sometimes becomes necessary to maintain dilatation by the frequent application of mechanical devices continued through a considerable period. This, to my mind, is an essential feature of the technique in operations for the restoration of the vaginal canal under these circumstances.

In complete atresia, viz., in those cases in which the rudimentary vagina exists as a fibro-muscular cord, with its interior duly sealed, I have found great difficulty in relieving the condition and resisting the tendency to a recurring stenosis. The operation of dilatation, after careful dissection along the line of the canal, and the subsequent maintenance of dilatation by the introduction of metallic or rubber plugs is not justifiable, as a rule, except in such cases as have presented the prodromata of menstruation, or in which there is obvious dilatation of the uterus, due to the accumulation within it of menstrual fluid. To settle the question of the condition of the uterus and adnexa in these cases, it is sometimes necessary to make an exploratory incision by the abdominal route. I mention the abdominal route because it offers much more accurate and intelligent observation than if the dissection were attempted by way of the perineum. If, upon such exploration, the uterus and adnexa are found to be sufficiently developed to justify further interference, the canal can be dilated and maintained in a condition of dilatation, as I have already indicated.

There are certain other cases in which it is necessary to consider the expediency of this operation, viz., in those cases in which the patient, in spite of our advice to the contrary, insists upon establishing or attempting to establish the marital relation. Under such circumstances it is important to prepare the vagina for coitional purposes. This is far from an easy task. In two cases of rudimentary vagina I have succeeded, under an operation such as I have already indicated, and have maintained dilatation by mechanical devices for a period varying from eight months in one case, to fourteen mont in another, establishing a patulous can of such caliber as to permit the marit relation. In this connection I have be singularly impressed with the fact th a vagina thus established develops fro the mere rudiments *in situ*, before t operation, a form of mucous membra that is not strikingly different from th which is found in the normal vagina. T canal, in each instance, possessed su cient secretory glands to maintain a n mal degree of moisture. In one instan in which the uterus was so rudimenta as to give no promise whatever of su sequent menstruation, let alone conc tion, developed under the stimulus of ition until shortly after two years a slig menstrual flow appeared at regular int vals. The flow was painful, so painf indeed, that it is a question whether t last estate of the patient was not wor than the first. The interesting physiolo cal experiment remains, however, th the developmental impulse is promot by functional activity, a general law, believe, but one which is nowhere b ter exemplified than in the case to whi I refer.

I now come to the most interesting ca in my experience, viz., one in which the was complete congenital absence of t vagina, but in which I succeeded by t technique which I shall describe, in c ating a vagina, which has since se served the purpose of coition. When say complete absence of vagina I spe advisedly, for in two very careful diss tions the rudiment of the vagina was n to be found. The details of the case a as follows:

A young woman, aged twenty-two, w referred to me, for absence of menstru tion. The patient was of excellent ph sique, muscular and had been in emplo ment for a number of years. Her breas were not large, but of the distinctly fe inine type. Growth of hair on pubes w scant, and the pudendal development w scarcely rudimentary. The labia mino and majora bore a relative developme of infancy. There was not the vestige a hymen. There was a small triangul perineal body, but a sound passed in the urethra could be so distinctly felt the index finger in the rectum that

eemed that there was but a slight interening septum. Careful bimanual examintion under anesthesia failed to reveal he presence of either uterus or ovaries. he had never experienced the menstrual r sexual impulse. I rendered my opinion nd advised non-interference. The paent urged, however, that I make surgical xploration, although she would not conent to an exploratory abdominal incision. he entered the hospital May 20, 1902. divided the septum to a depth of two nches, but not finding the remotest indiation of the existence of a uterus, or ven of the usual rudimentary vagina, I esisted. The incision, as might have been xpected, closed in spite of the patient's lort to keep it open, so that three onths after the operation, with the exeption of a slight external sulcus at the ottom of the genital fissure, she was recisely as she was before. In Novemer, 1904, she returned to ask some exlanation of the existence of the sexual mpulse to which, during the preceding ear she had been subject, much to her nnoyance. She had been seized with an rdent desire to be married, and was deirous of taking advantage of a presenting pportunity. I made another examination, hen I found that the changes in the obective condition had become almost as narked as in the subjective state. Her reasts were larger and the nipples were uch more distinctly developed than preiously. The pubes had become covered ith a heavy growth of hair. The labiæ ajora were as fully developed as is sual in a multiparous woman. The labiæ inora had become completely developed. he patient complained of periodical ains in the pelvis. This latter fact rompted me to make another explorason. She consented to a preliminary exloratory incision of the abdomen, and he operation was performed on the 6th of larch, 1905. The abdominal incision reealed the presence of two ovaries, rather bove the average size, but perfectly norial. The fallopian tubes were likewise ormal in development, and were entirely ealthy. The uterus, however, while norial in outline, was less than two and fiveenths c. m. in longitudinal diameter and bout two c. m. from one cornu to the ther. A sound passed into the bladder and pressed against the index finger in the cul de sac of Douglas, at a point just below the rudimentary cervix, failed to reveal the presence of even a rudimentary vagina. Two parallel incisions, two c. m. apart, were made from a point even with the meatus urinaris posteriorly to the perineum, a distance of about 4.5 c. m. Another diagonally across this quadrangle, thus making two long, narrow-pointed flaps, which were dissected up from the underlying structures. The vesico-rectal septum was now split up with a Kocher dissector until the point of the instrument could be felt by my finger on the inside of the pelvis. When the rudimentary cervix was reached it was made free by sweeping the point of the dissector around it. Sutures of silkworm gut were now passed through the vault of the newly-made vagina, one in front and the other back of the cervix, and were made to transfix the tips of the two cutaneous flaps at the vulval orifice of the canal. When these sutures were tied these flaps, one anteriorly and one posteriorly, were drawn into the canal, and there converted respectively into an anterior and a posterior wall of the vagina. The skin of each labia minora was now dissected loose, and by means of another suture was drawn into the vagina to the distance of two c. m., and fixed. This, of course, left the lateral walls of the upper part of the canal without epithelial protection, but it was thought that with the antero-posterior flaps secure *in situ* complete fusion of the proximal edges in the process of repair would be prevented. This point secure, it was felt that the subsequent development of the vagina might be left to Nature. The sutures were removed at the end of two weeks, when the implantation of the grafts was found to be perfect. On the nineteenth day after the operation the patient had a sanguineous flow, lasting three days, which looked much like menstruation. Careful examination at this time revealed the fact that it did not come from the cervix, but oozed from the upper third of the vaginal canal. Is it possible that it was a vicarious menstruation?

I have not presented the foregoing case merely as a contribution to teratological

literature, but from its extremely practical importance. These atresiæ may occur in the experience of any practitioner. They should be promptly detected, for if anything is to be done for the restoration of these cases it ought to be done during the developmental period of the individual's life. It is during this period that the forces of Nature are on the side of the surgeon. While it is true that in some of my cases development was stimulated by coition in persons who had attained mature years, the fact remains that in the majority of all instances recorded in the literature of the subject, the greater development occurs in the years preceding this period.

The Groton.

[Written for the MEDICAL BRIEF.]

Elementary Facts Regarding Pulmonary Tuberculosis.

BY HENRY L. SHIVELY, B. S., M. D.,

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It is estimated that one hundred and fifty thousand people die every year in this country from tuberculosis, and that three hundred thousand new cases are contracted annually. For the past ten years in New York State more than thirteen thousand deaths have every year been attributable to this cause. All other epidemic diseases combined, small-pox, scarlet fever, measles, diphtheria, cholera, yellow fever, and the Asiatic plague, do not cause half as many deaths as does tuberculosis alone.

One of the saddest features of this frightful mortality is that it destroys the individual at the most useful and productive period of his life, for it is between the ages of twenty and forty that consumption is most fatal. In childhood and old age, the disease often appears to run a more favorable course as regards danger to life.

The best scientific opinion teaches us that consumption is readily curable in its earlier stages, and that it is even more readily prevented. What, then, are these measures of prevention and of cure Tuberculosis is distinctly a disease c civilization, of housing, and of confin ment. The caged beast in the menageri domesticated animals, the prisoner in hi convict cell, the dweller in the unsanitar and overcrowded tenement, are especiall liable to become tuberculous. Among wil animals and savages living in a state c nature, the disease is unknown. Th American Indian, the African negro, an the native Australian, only fall victim to consumption after contact with civi ization, and after the decay of their prin itive habits.

These facts indicate a special cause fo the disease, and also the very great in portance of an abundant supply of air an light in methods of prevention and cur Experience has shown that in the jud cious use of these great natural agent combined with nutrition and baths, ou most successful treatment lies.

For hundreds of years there have bee in every generation among physician good observers and thoughtful student who believed that consumption was con municable from person to person, but remained for the genius of Robert Koc to demonstrate the living virus by hi brilliant discovery of the bacillus in 188 This minute rod-shaped germ, which ca only be seen with the aid of a powerfu microscope, he showed to be always pre ent in the lungs of persons suffering fro consumption. He succeeded in separa ing it, and grew it in a suitable soil, an produced the disease experimentally i animals by inoculation. There is n longer any doubt as to the necessary rol played by the Koch bacillus in causin consumption. His method of isolatin and detecting the germ is in daily use b physicians as a part of the routine exan ination of tuberculous patients. Lik most great discoveries, the principle is s simple as it is ingenious. The germ stained a deep red, with one of the anili dyes, which colors equally the tissues i which the microbe is imbedded, or th sputum in which it floats. At this stag it would be impossible to see the germ everything being of a uniform red colo The notable peculiarity of the bacillu however, is that it holds fast to the colo more tenaciously than anything about i

When the specimen is passed through dilute acids, everything is bleached, and loses color except the germ, which retains a brilliant red, and is thus easily distinguished under the powerful lenses of the microscope.

In the expectoration of a moderately advanced or advanced consumptive there are coughed up daily many hundred millions of these germs, each capable under favorable conditions of multiplying and producing anew the disease. It is thus at once apparent how important is the careful destruction and disinfection of the sputum, in order to prevent the spread of the infectious microbes. The patient should carefully collect his discharges in proper vessels, cloths, or paper napkins, which may be burned or disinfected. He should also avoid soiling his clothing or hands with particles of sputum. By so doing, he is not only protecting his family, and friends, and the public, but he also increases his own chances of recovery by avoiding the possibility of fresh infection. It is also desirable that the patient when coughing or sneezing should turn his head aside, and hold a handkerchief before his mouth and nostrils.

Fortunately the bacillus alone is not sufficient for the production of the disease. It must have a favorable soil, and is usually powerless to inflict harm upon the robust, well-nourished person, whose healthy tissues present insurmountable barriers to the invasion of disease germs. Were this not the case, civilized man would long since have been exterminated by tuberculosis and other infectious diseases to the germs of which we are constantly exposed.

Usually the disease itself is not hereditary, as is commonly supposed, except in the sense that a constitution of diminished vigor and resisting power may be inherited. The consumptive woman who marries will probably have one child; she may possibly have two, but she will not live to have a third. The danger of infection to the healthy partner in marrying a consumptive is much greater for women. In some seventy cases of healthy persons with no family history of tuberculosis who developed the disease after marrying a consumptive, there were six times as many women as men.

Dr. Brehmer, the father of the modern sanitarium treatment of tuberculosis, found that among his patients the later children are born with a smaller inheritance of resistance, and are most likely to become consumptives.

In childhood, tuberculous disease less frequently affects the lungs than in adults. The more usual manifestations in children are chronic sore eyes, running ears, lumps in the neck, abscesses, skin disease, and bone and joint disease, causing disabling and hopeless deformity. The hump back, the shortened and withered limb, the stiffened knee or hip, usually mean that the victim was a sufferer from tuberculosis in childhood.

Certain diseases of children, such as whooping cough, measles, scarlet fever, and broncho-pneumonia leave the child weak, and in a condition favorable to become a prey of the tubercle bacillus. After these diseases, or any long-continued exhausting illness, the child should be removed for a time to the country until he has regained health and strength.

The choice of an occupation has often an important influence in the prevention of tuberculosis. Indoor pursuits and occupations exposing the lungs to irritant dust and vapors, are to be avoided by young persons predisposed to consumption.

The abuse of alcohol is an undoubted factor in the causation of tuberculosis. In France, more than fifty per cent of all consumptives are confirmed drinkers. People who depend upon stimulants usually take insufficient food, and intemperance in drink leads to recklessness in living, over-exertion, fatigue, exposure and excesses which are sure to undermine the health, and render the individual less resistant to tubercular infection.

Excessive smoking of cigarettes in not a few cases has appeared to be a factor in the development of consumption. Habitual users of cigarettes make a practice of inhaling, and smoke more constantly than smokers of pipes or cigars.

When tuberculous disease actually exists, the first essential of successful treatment is its early recognition by both the patient and his physician. One of the greatest difficulties in combating con-

sumption is due to its slow, insidious course, which usually extends over many months, or even years. The patient at first is hardly aware that he is ill, and it is often difficult to persuade him or his family that he requires medical care. The one symptom which excites his alarm, and brings him to a physician, is the spitting of blood, and even this he may endeavor to explain away as having its origin in his throat or stomach. The patient during all this time has been ignorantly disseminating the germs about him in his home, and in the street.

A cough lasting more than six weeks, and associated with loss of weight, declining strength and failing appetite, is possibly the beginning of consumption, and should be made the occasion for a careful physical examination by a competent physician. If beginning tuberculosis is present, the patient should be told so frankly, for without such knowledge on his part he will not take the proper measures, nor continue them long enough to make possible his cure. His interest and co-operation must be secured, and this can be done by the tactful physician without alarming or depressing the most sensitive person, if he is made to realize the curability of his disease, and to how great an extent it is dependent upon his own conduct. If the patient can not go to a sanitarium, we must bring sanitarium methods, as far as possible, to his relief in his own home. Medicines while helpful, play a secondary part, and may often be almost dispensed with if a liberal supply of air and light are secured with a generous diet.

If the disease is progressive, and the patient has fever, no active exercise should be taken, but he should occupy, enveloped with warm wraps or blankets, for several hours a day, a steamer chair or cot in the open air, and protected from high winds and storms by an awning or some simple shelter contrivance which should not interfere with the free access of fresh air. Patients who are doing well and gaining in weight, and have no fever, may be allowed more liberty, and walks in the park, or rides in open cars, or short trips on the decks of excursion steamers in fine weather, are useful ways of taking the fresh air treatment.

In the diet of the tuberculous patie the main reliance is the administrat of milk, and I always feel that the ba is half won if the patient can continue take, month after month, as much as t or three quarts of milk daily. When i well borne, the addition of a little cre is desirable, and from four to six egg day are advised. In addition there sho be permitted as varied and ample a d of easily digested and nourishing foods the condition of the stomach will all such as broiled chops, steak, roast be chicken, fish, soups, butter, fruits a green vegetables. Sweets, pie, ca pickles, candy, and salt meats, or pork a veal, which have relatively little nutrit value, should be taken sparingly, if at and cereals, such as oat meal, fari hominy, etc., should have less of a pl in the dietary of the consumptive th in that of a healthy person.

The most successful physicians in treatment of consumption usually emp the simplest methods, and educate th patients in the intelligent use of the Mysterious cabinets, elaborate spray c trivances, complicated inhalers, hi priced nostrums, electrical applian and wonder-working machinery of kinds, are usually so much rubbish, a designed to impress the credulous pati rather than cure his disease.

In the measures necessary to succe fully combat tuberculosis, there will in dentally be secured many other valua reforms of scarcely less importance, in its broadest aspects the anti-tuber losis crusade is a warfare waged agai ignorance, uncleanness, intemperan poverty and social misery.

Enough has already been done in t city to effect a very considerable red tion in the mortality and prevalence tuberculosis, and it is not unreasona to look forward to a time when by effective application of the prevent means we now possess, this dread dise will be controlled as well as small-p which, in the eighteenth century, was most as great a scourge.

303 Amsterdam Avenue.

Enclosed find one dollar for your va able journal, the MEDICAL BRIEF.—J MERTENS, M. D., Lebanon, S. Dak.

[Written for the MEDICAL BRIEF.]

How to Live a Hundred Years.

BY GEO. HUMPHREY TICHENOR, JR., A. B. (TULANE), M. D. (TULANE),
mber Editorial Staff Dixieland Magazine, Organ of the United Confederate Veterans; Former Medical Inspector Louisiana State Board of Health, etc. New Orleans, La.

Claims of Quacks.—It has become a rious problem how physicians are to put emselves right with the public, and to them understand something of the vancement made in the art and science medicine, in order to give them a cor-t idea of those things which are con-cive to longevity.

Posing as advocates of physical culture, od fads, and magnifying the possibility "natural methods for curing disease," ere are magazines which are exerting influence on the minds of the ignorant d feeble, more to be dreaded than any d all the evils that may exist in our nks. Behind one of these magazines, iming a circulation of over one hun-ed thousand, is one of the most widely vertised and most dangerous rum rem-y institutions.

The Evils Existing Which Produce nerican Physical Degeneracy.—When consider that there are about $60,000,-0 of patent medicines (how many in-rious?) annually sold in the United ates; thirty-three per cent of the pa-nts of asylums in America are opium ters; not one-half the sale of mor-ine in our large cities can be traced to e legitimate demands of physicians and spitals; the money annually expended r liquors exceeds in amount the cost of the bread, meat, boots and shoes used the entire country during the same riod; more money is spent each and ery day for tobacco than is expended r bread; the percentage of adultera-on, sophistication, and misbranding of od largely exceeds five per cent of the hole—more correctly, perhaps, fifteen r cent; the amount of adulteration, bstitution, and impurity of drugs; ly two-thirds of the men and women of r country now ever marry, and this oportion is constantly being lowered; e total number of persons engaged in gainful occupations in 1900 was twenty-nine millions, seventy-three thousand, two hundred and thirty-three, which constituted one-half the population ten years of age and over, and nearly two-fifths of the entire population, of these four millions eight hundred and thirty-three thousand, six hundred and thirty were women, and one million seven hundred and fifty thousand, one hundred and seventy-eight were children, those of foreign birth aggregating five millions, eight hundred and fifty-one thousand, three hundred and ninety-nine, or two-fifths of the total number of gainful workers; during the last school year, one thousand one hundred and twenty-nine women were students of medicine, and five-sixths of these were in co-educational institutions; the people who died of consumption in the United States numbered one hundred and ten thousand and fifty-nine more than were carried off the same year by appendicitis, railway accidents, diphtheria, grip, cancer, and typhoid combined; the immigration inspectors have reported to Washington that almshouses, homes for orphans, and other charitable institutions in nearly every State of the Union have a large percentage of aliens, who are sent to the country because they receive better treatment than in similar places in Europe; the worship of the dollar, the neglect of religion, the constant over-exertion of physical endurance, mental gluttony, the lost art of total relaxation of mind and body; the high nervous tension of life, and immorality, social degradation of women, and disease of most villainous type, which is transmitted to the third and fourth generation, is alarmingly increasing—it is no wonder that thirty-five per cent of the children born never reach the age of five years, and Denmark is damnably rotten.

Remedy Existing Evils by Legislation.—Therefore, the first thing we should do in order to increase our longevity is to remedy these existing evils by legislation, and see that our environments are wholesome, as we can not help the constitution we are born with, but are responsible how we develop it.

The evils of heredity can be modified. While it is true that the sins of the fathers are visited on the children, but,

with the exception of actual disease (blood contamination and insanity), and intoxication, either from liquor or narcotics in the parents, infants are not affected before birth, but come into the world healthy. This has been proven in cases when both parents were consumptives, and the infant has been reared away from home, under sanitary conditions, the child developed into a healthy adult. It is after birth that the unfavorable influences (unsanitary homes, personal filth, evil associations, drink, narcotics, poor food, semi-starvation, lack of proper exercise, over-work, etc.), begin.

But even if the baby's parents were weak, and its surroundings unwholesome, there is a tendency on the part of the baby to revert to the racial type and standard of constitution, and if properly cared for may possibly rival in strength some far-away ancestor.

My own investigation among the mongrel races of Central and South America convinced me of this fact. For instance, the people who originally settled Costa Rica came from the Gallician portion of Spain, where the people are of Castilian and Moorish extraction, noted, I am pained to say, for their ugliness, owing to the fact that they have very prominent cheek bones and Moorish expression of face and stature. Notwithstanding the fact that, in many cases, where they have intermarried with the Indian, their children, in many instances, will be distinctly Gallician-Spanish in type, and the other brothers and sisters may be, to every appearance, pure Indian—other characteristics of ancestors also can be easily discerned.

It is a frequent expression of the public to attribute a great many of their afflictions to their ancestors, when, in a great many instances, it is the result of their own abuse of Nature. If this were not true, physicians would not live longer than other professional men, their average lease on life being over sixty. Only seven per cent die of tuberculosis (consumption), which shows that they guard carefully against infection. Over forty per cent are of nervous breakdown or heart trouble, almost unavoidable conditions, owing to the character of their profession. Again, investigations made by life insurance experts show that t statement is correct..

The New York Jew is, on the avera the most long-lived of the city inhal ants. The temperance of the Jews in things accounts for their longevity. for the Irish, Germans and Scandi vians in the United States, an investi tion by the combined American life surance companies, covering the polic of the last thirty years, and including between the ages of fifteen and seve years, shows the Swedes and Norwegia who are usually engaged in farming, be the most long-lived. This being case, what can we naturally expect, wh out of twenty-nine millions, nine hundr and fifty-six thousand, one hundred a fifteen men engaged in gainful occu tions, nine millions, four hundred a fifty-eight thousand, one hundred a ninety-four are in agricultural pursui

Rev. F. G. Gunsaulis points out the f that our brains and brawn come from country. "Out of one hundred of C cago's prosperous business men, I fou that eighty-four, beginning with Marsh Field, came from the country. Seven six out of one hundred of the best la yers came from the country, and seven one out of one hundred of the best phy cians came from the country." Th facts are strong evidences that the Am ican people are living at too high a pr sure, and our condition can be improv We need more temperance in all thin and should improve our inherita rather than impair an unhealthy inh ited constitution.

Statistics show "for each thousand population the number of persons fr forty to sixty years of age are: In G many, one hundred and seventy-nine; America, one hundred and seventy; o sixty, in Germany, seventy-eight; America, sixty-five."—Dr. Laquer.

"Although we are more temperate the use of alcohol than the Germans a working on an average of ten per c shorter hours, the American becomes hausted earlier in life," owing to t strenuous life. These proximate cau of failure of power in old age are n coming to be fairly well understo Every high school boy and girl kno that the different parts of the human

anism daily die and are renewed; that ıe scarf-skin loses the vitality necessary) protect the true and peels off, and that ven the cells of the bones are exchanged r new ones, until it may be said that ter maturity man retains no part of the dy he was born with.

This being the case, we naturally ask rselves the question, what are the most tent factors in assisting Nature in perrming this function, and what are those ings which are required of us in order keep our bodily machinery in good rking order, so that friction will be dinished and thus longevity increased?

In my opinion, the use of common salt d water and the proper care and exerse of the lungs are the most potent facrs in prolonging the life of healthy peoe.

Service of Drinking Water.—Yet there ver was a time when these factors were neglected as to-day. The present stress competition in all the walks of life puts e nervous system at a greater tension an ever before, while lack of exercise, or ventilation, and the impurities we nstantly inhale, especially in our large ies, cause the waste products in the dy to become greater, and if not elimined in sufficient quantities health is in short time impaired. Water is a harmss medicine, which will accomplish the mination of waste products, and the ygen it contains burns up the waste terial. It is strange that the abundce of water in the human system should t call the attention of the average nking person to the necessity of reenishing the system continually with it. composes, perhaps, four-fifths of our sh and blood, and each adult in active ercise needs about three pints per day.

Service of Salt.—Common salt in abundce, like water, is absolutely necessary the life of human beings. Therefore, ture supplies it in abundance. It does t enter into the composition of tissue e water, but it is essential to the propdigestion of food, and to the removal worn-out matter. It has been clearly oven that the disease-resisting power of od serum depends on the proportion of dium chloride it contains, and the same wer, if lost by abstraction of the mineral, can be restored by adding the same to the serum.

My clinical observations have also demonstrated this fact in the treatment of contagious and infectious diseases. Salt solutions, when used at the opportune time, will reduce the temperature of fever and restore the heart's beat to normal number of beats per minute. Experiments with the lowest forms of mammal life will show that injections of sodium and calcium solution into their veins after life is practically extinct, will restore for varying periods of time the heart beat in its normal rhythm and strength. Therefore, drink a glass of water in the morning when you get out of bed, and take a salt bath, then a sponge bath in cold water, and a brisk rub down, and enjoy the sensation of being clean on the outside and the often neglected inside.

Do you realize that sleep has absorbed the water in the blood, and a natural instinct would be to replenish and distend the blood vessels anew by drinking bountifully of cold water, and to stimulate the nerves to renewed activity for the day by a salt bath? The food which was eaten before retiring has disappeared, leaving a mucous substance in the alimentary canal, therefore you want to drink a glass of water in order to leave a stimulus behind for digestion and put a spur to the circulation by having plenty of salt in your food, as the circulation has grown sluggish during the night. The salt will help to remove the mucus which is being washed out of the alimentary canal by the water, and remove the waste products. Cultivate this habit. Use seven glasses of water a day and a salt bath on rising and retiring.

Proper Exercise and Care of the Lungs.—While you are cultivating this habit, take up another more important, also, deep breathing. In this day of physical culture and confinement in the house, the greater part of the day, it is well to know what part of the body is most important to exercise, and the proper care of same. If people would only practice the art of breathing, in many instances, there would be fewer cases of consumption and pulmonary troubles. On rising and retiring one should inflate the lungs to their full-

est capacity, allowing the air to escape as slowly as possible, repeating the exercise at least ten times in the morning and at night several. Also make it a habit to take deep breaths during the day. The lungs, like any other portion of the body which is not properly exercised, deteriorates. Again, deep breaths inflate the lungs to their fullest capacity, while "shallow breathing," which is the habit of most people, makes use of only a part of the lungs. Again, if we collect a quantity of expelled air and analyze it, we shall find its composition is not the same as that of the inspired air. When it entered the lungs it was rich in oxygen, a gas which burns up the waste material of the body; now it contains twenty-five per cent less of that gas. Its volume, however, remains the same, its loss being made up by a very different gas, carbonic dioxide, a poisonous gas which the lungs exhale.

Therefore, one can see at once the importance of a good apparatus. There is no doubt, in many cases, consumption is simply the result of "lung starvation." The Sanitary Commissioners for the European army barracks stated in their report: "A great amount of phthisis (consumption) has prevailed in the most varied stations of the army, and in the most beautiful climates, in Gibraltar, Malta, Ionia, Jamaica, Trinidad, Bermuda, etc., in all of which places the only common condition was bad air, which the barracks system everywhere produced." There has been, of late, a decline in consumption in these stations in proportion to the improvement of the condition of the air, which is certainly strong evidence in favor of the foregoing statement. Again, Bondin showed that while the deaths from consumption in the British army were, in the line, 8.9 in one thousand men; in the guards, 12.5 in one thousand, and in the navy, only 1.76 in one thousand, proving the effects of good air, salt water, and a temperate life in all things.

Conclusion.—Therefore, I believe by observing the rules I have laid down in connection with the following, which are a resume of the advices of the scientists of to-day, the longevity of our people could be increased to a hundred years: Nothing in excess.

1917 Palmer Avenue.

[Written for the MEDICAL BRIEF.]

Peritonsillar Abscess.

BY L. C. MCELWEE, M. D.,

Ex-President State Board of Health of Missou
Dean of the Homeopathic Medical Colle
of Missouri; Professor of Surgery in t
Homeopathic Medical College of Missou
St. Louis, Mo.

When a physician is called upon to tre an acute case of peritonsillar abscess, will feel a little more comfortable du ing its management if he feels assure that he has a certain means of offset all symptoms which may arise, and st more comfortable, if the "worst com to the worst," if he has a safe and su method of finally conquering it.

To him who has been defeated in fr quent well-directed and ordinarily suf cient efforts to evacuate the pus from deep abscess of the peri-, retro- or infr tonsillar areas, any scheme, which insur *invariable success* in evacuating the pu cavity, will be received with more or le gratification. Recently, a physician wh had failed in twelve unsuccessful a tempts to reach the pus in one of the abscesses, succeeded in the thirteenth e fort, by this method removing at once th pus, and with it the hoodoo supposed accompany the number thirteen.

I had a patient, only a few weeks ag who came to have his tonsil lanced. H told me he was subject to repeated a tacks of quinsy, and although he ha been in the British and American navi for more than a decade, during whi time he had suffered many attacks, he h not yet found a surgeon who had su ceeded in evacuating the pus, thou many had tried, being compelled to wa for its spontaneous discharge, which co pelled him to lay up for a fortnight more each attack. I assured him that had at last found his man! With a sick grin he mumbled that he hoped so, a lay down in my office chair to submit my ministration.

The method which I have devised w a natural and progressive evolution is, I see it, absolutely without danger, an therefore may be practiced by any ty Every practitioner has in his pocket-ca all the instruments necessary except t gag, which can be procured of any strument maker, or improvised by t

erator at will. The plan consists of the lowing steps:

. General anesthetic—administration

. Forcing mouth open with suitable g, and exposure of affected area.

. Superficial puncture of mucous mbrane *only* over highest point of elling.

. Deep puncture through interstitial sue into abscess cavity, with grooved ector, six or seven centimeters, if nec- ary, in the worst cases.

. Divulsion of the penetration canal.

The general anesthetic (chloroform pre- red). is *absolutely* necessary, because the insufferable pain caused by forcing n the mouth. In this and the puncture the deep structure lie the only danger the individual. The mouth is next ced open as wide as possible, and the g inserted between the molars on the ll side, when the patient is then turned the opposite side, so that the operator, o sits or stands at the head of the pa- ct, may have control of the gag with his t hand, and to promote the easy flow blood and pus out of the mouth, that it y not gravitate into the larynx or chea, and induce troublesome cough- .

An assistant depresses the tongue, ex- ing the swollen area, and, if possible, palpation, the softest spot on the ex- sed surface is located by the tactus ditus of the index finger of the opera- when puncture of the mucous mem- ane *only* above it is made with a sharp stoury, which is immediately laid aside. to this small opening is now inserted her a grooved director or probe-pointed stoury, which is pushed on through the tervening connective tissue into the ab- ess cavity, which is announced by a ces- tion of resistance, and usually by a flow pus at the side of the bistoury, or rough the groove of the director. The netrating instrument is then withdrawn d a hemostat (Kocher's preferred) is troduced closed, and when separated *in u* is withdrawn while open, thereby aking a wide canal for drainage, the eration then being completed, and the l bugbear of the internal carotid artery blown away.

221 North Grand Avenue.

[Written for the MEDICAL BRIEF.]

Suburethral Abscess.

BY C. JEFF. MILLER, M. D.,
Professor of Operative Gynecology in the New Orleans Polyclinic.
New Orleans, La.

Suburethral abscess, or incomplete internal urethral fistula, may give rise to many annoying symptoms, and require long and tedious treatment. It may be located anywhere along the urethral floor, and presents a well-defined round or oblique swelling of the anterior vaginal wall, just under the urethra.

If it is situated in the lower third of the urethral vaginal septum, it usually bulges in the vaginal outlet, and can be seen without opening the labia. If it be located high up, it will be more difficult to recognize, and is frequently overlooked.

The cause of the affection is not very clear. These abscesses are seldom seen in the acute stage, and usually come to the gynecologist with a history of long standing symptoms. Chronic circumscribed urethritis, or glandular urethritis of gonorrheal origin, is probably the most frequent existing cause. Diverticula of the urethral wall, injuries following confinement and retention cysts cause a type easily differentiated from abscesses following periurethral suppuration, and if the sac is draining there is a history of constant discharge of pus from the urethra. Frequent urination and tenesmus are noted, and are much more exaggerated when the abscess occurs near the neck of the bladder.

Palpation will detect the thickened edges of the wall of the urethra if the trouble has followed periurethral inflammation. The urethral speculum is of the greatest diagnostic value. It is introduced deep into the urethra, and as it is withdrawn a congested mucosa is revealed, and as the end passes the abscess orifice in the urethra, pus is seen to exude. The bent probe can then be introduced, and the sac explored.

Experience has shown that surgical treatment should be prompt, although one is prone to adopt general cleansing measures. Daily emptying of the sac and cleanliness may cure some cases, but such treatment at best is tedious, and requires time.

A complete fistula is not more annoying to the patient, and much easier to relieve, if the proper treatment is observed. If the urethra can be thoroughly dilated, and the pus opening enlarged so that drainage is thorough, spontaneous cure may follow, but when the condition is due to periurethral inflammation, this is not always possible. The sac is incised over the vaginal site, and a retention catheter introduced, or the bladder should be emptied at regular intervals with a soft rubber catheter. An elliptical portion of the sac may be incised, the entire sac dissected out, and the wound closed with sutures as in an ordinary case of fistula.

Simple incision is all that is usually necessary, thorough incision and cleanliness, and the employment of the catheter. Most cases will close in from eight to ten days.

1719 Jackson Avenue.

[Written for the MEDICAL BRIEF.]

A Question of Diagnosis.

BY W. R. JACKSON, M. D.,
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I was very much impressed by this particular case as being one of unusual occurrence, and out of the regular order of things. It indicates a mistake in diagnosis which any surgeon is liable to make, and this procedure may be a lesson to someone meeting the same conditions in a patient.

Female, aged twenty-seven, gave a menstrual history as normal from the time of puberty up to the present time. Married seven months ago. Menstruation ceased three months ago, attended with all signs of pregnancy. Upon examination a large fluctuating tumor could be palpated through the vagina extending above the brim of the pelvis, of the size of a fetal head. No cervix uteri could be felt on digital examination, a large cavern marking, on the left side, the existence of what was supposed to be the vagina. So extensive and so cavernous, that ordinary digital examination failed to detect anything else on the left side; in the region of the appendix was a mass about the size of two fists, with a fluctuation, giving sensation of a pregn uterus.

The diagnosis was "pregnancy with ovarian cyst."

The patient was advised to accept op ation, with a view to removing ovarian cyst, and pregnancy to be lowed to go on to full term.

On making an exploratory incision very large tumor was found on the l side, extending above the brim of the p vis, of the color of a pregnant uterus, a another smaller one, connected with first, extending to the right, and filli the right iliac fossa, also presenting appearance of a pregnant uterus. B fluctuated on palpation, giving the sen tion as if containing a semi-solid flu or a sensation of pregnancy. Upon l ing the two bodies up, and an incisi made, we found a bi-cornuated uter one horn of which was very large, wh we considered to be a pregnancy, furth developed possibly than the other si but on exploratory incision of the larg mass, it proved to be menstrual blood colloid nature, and an accumulation ten or twelve years.

The diagnosis was then very plain that we had a bi-cornuated uterus to d with, one cornua of which was complete atresied, resulting in an accumulation menstrual blood for years. The oth cornua, giving the same sensation, changed our diagnosis, believing possib that was also an accumulation, but exploratory incision showed pregnan An atresiaed cornua on one side, and pregnant uterus on the other. We remov both portions of the uterus, severing t tubes at their attachments, and leavi the ovaries in, opening up the atresi portion of the uterus below, and letti out all the clotted blood, leaving t stumps of the uterus. In other wor performed thorough emasculation of t patient, leaving the ovaries.

The important question is, whether th woman will menstruate again, having b the stump of the uterus and the tub severed from it, the ovaries still maining. The case will be watched wi great interest. The patient made an u interrupted recovery. Since the oper tion she complains of no pain, for the fi time in twelve or fifteen years.

162 St. Michael Street.

[Written for the MEDICAL BRIEF.]

Tabes Dorsalis.

BY G. P. EDWARDS, M. D.,

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Tabes dorsalis is a parasyphilitic disease characterized by a degenerative process of the sensory elements of the nervous system, and manifesting symptoms varying with the locality and extent of involvement.

While it is possible that other conditions may produce similar changes in structure and function, the most universal and prolific cause of the disease is unquestionably syphilis. The tabetic symptoms may appear in one to thirty-five years after the primary infection; the most frequent period is ten to twelve years.

The milder cases predominate in tabetic sequelæ, probably because the treatment is more often neglected in this type of the disease.

The disease may appear in childhood from hereditary syphilis, but in the acquired form it occurs between twenty-five and fifty years of age, the greater proportion occurring about the age of forty.

The disease predominates in males ten to one.

A neuropathic heredity is an important predisposing factor. Occupation only in so far as it relates to opportunities for acquiring syphilis, may be considered as a predisposing cause; soldiers, actors, artists, and professional men are much more often found among its victims than country laborers, clergymen, etc.

The disease is essentially degenerative, and in the direction of the physiological impulse—afferent.

These changes are of the Wallerian type, beginning in the peripheral sensory nerve, and progressively extending to the spinal nerve roots and ganglia, tracts of Lissauer, columns of Burdach, Goll and Clark, direct cerebellar tracts, Gower's columns, and the visceral sympathetic fibers, in the relation named.

The cord lesions are usually symmetrical, but occasionally are not so. There may be circumscribed areas of meningeal inflammation overlying the sclerotic patches. All the cranial nerves are liable to degeneration, but the optic and auditory nerves are most frequently involved. The lesions found in the cerebrum are those of paretic dementia, a condition arising from the same specific cause.

The symptomatology of tabes embraces almost every function in the body, the clinical features of which could not be enumerated within the scope of this article, and I shall attempt to enumerate only some of the chief symptoms, and the more important clinical features. Among the first to attract the patient's attention are the motor symptoms; they are ataxia, involuntary movements, and palsies.

Loss of muscular sense, associated with peripheral dysæsthesias, produces the peculiar inability to recognize attitude or posture without the aid of the eye. It is also responsible for the inability to distinguish the difference in weight of bodies held in the hand. The loss of this posture sense renders the patient unable to retain his equilibrium when standing with the eyes closed. The symptom known as the Rhomberg sign is more readily detected in attempts to walk backwards with the eyes closed, or by reducing the base of support as in the attempt to stand upon one foot. The ataxic gait which characterizes the disease is due to this co-ordinate deficiency. The gait is characterized by lack of precision in all the movements, varying in degree with the stage of advancement of the disease. In marked cases, the patient rises from the sitting posture with a sudden jerky upstart, hesitates a moment to acquire his equilibrium, suddenly steps out, plunges forward, the legs being thrown out in an irregular, rigid, jerky manner, the foot lifted high and brought down with considerable force, on the heel or flat foot. The muscles of the body are under constant, irregular, jerky action in efforts to maintain the posture. The patient evinces a marked distrust of every movement, and is wholly dependent upon his sense of sight in their execution.

The upper extremities, and, indeed, any part of the muscular system may manifest inco-ordination of movement, but it is usually more pronounced in the lower extremities. Involuntary movements of

a choreic type are common at all stages of the disease.

The paralytic features of the disease are due to the involvement of the anterior gray horns, and a consequent muscular atrophy, or they may be due to changes in the cord or brain of an organic or vascular nature. They embrace facial, lingual and laryngeal palsies, hemiplegia, monoplegia, and paraplegia.

These palsies are more or less temporary, but may be permanent. The sensory disturbances vary greatly, and cover a wide range. They may be early, late, or both, and persist with more or less irregularity throughout the course of the disease.

Lightning pains are among the earliest manifestations, and are intermittent, fleeting, lancinating, boring, or twisting sensations occurring in any part of the body. When occurring in the visceral or other special organs they are known as crises. They are frequently atrocious in character, and may require the most energetic measures for their relief. Other sensory disturbances, such as the girdle sensation —a sense of constriction about the body— paraesthesias, and various disturbances of tactile pain and temperature sense are quite common and familiar to all. Disturbances of reflexes are early symptoms. The patellar reflex is diminished or lost in nearly all cases. The iris reflex to light is frequently abolished early.

There is a general loss of tonicity in the muscles. Temporary or permanent ptosis or squint, unilateral or bilateral, are common at any stage of the disease. The pupils are affected in the majority of cases, inequality, irregularity, mydriosis, myosis, sluggishness, loss of light reflex, loss of reflex to pain and absolute iridoplegia. Paretic dementia is the only disease which manifests such wide range of symptoms as tabes, and the disease is now believed to be a phase of tabes. The optic nerve degenerates in about ten per cent of tabetics. Early optic atrophy is generally followed by arrest and improvement of the ataxic symptoms.

The auditory nerve is subject to the same changes as the optic, and such changes are associated with impairment of hearing. There may be tinnitus and aural vertigo. More rarely the sense of taste and of smell are impaired or lost Paroxysmal attacks of pain and functional disturbance may involve any visceral organ, and are among the most frequently misinterpreted symptoms These visceral attacks are called "crises," and though of great variety are usually limited and uniform in a given case. Gastric crises consist of violent pain in the stomach, vomiting, and vertigo of variable duration and intensity. Intestinal crises consist of very painful colic attended with diarrhea.

Laryngeal crises are severe attacks of dyspnea, due to a spasm of the glottis and associated with paroxysmal cough Cardiac crises are attacks of angina pectoris. Renal crises resemble attacks of renal colic. Cystic, rectal, urethral, and testicular crises are characterized by acute pain in these organs, and, indeed no organ or member is exempt from these lancinating pains. Urinary disturbances as difficulty in starting the urine, incompleteness of the act, dribbling and incontinence, are early and persistent symptoms. There may be cystitis or glycosuria.

There may be early exaggeration of the sexual appetite leading to over-indulgence and followed by partial or complete loss of function. More or less anesthesia and analgesia of the external genitalia is usually present. Hyperesthesia or anesthesia of the soft palate, and increase or diminution of laryngeal and pharyngeal sensibility may be found separately or variously combined. Arterial sclerosis, cardiac abnormalities and vascular diseases are frequent.

The temperature is usually normal, but may be altered by intercurrent disorders.

All of the structures of the body are liable to disturbances of nutrition, and some are involved more or less in every case. A depraved condition of general nutrition is not infrequent, giving the victim a cachectic appearance. There may be spontaneous fracture and dystrophic arthropathies, which are generally marked by absence of pain. Trophic changes occur in the skin, such as herpes zoster, hypertrophies, loss of nails and teeth, hyperidrosis or anidrosis.

Perforating ulcer, a painless ulcer on e sole or palm, may occur, usually late. Muscular atrophies may complicate the ease, and are due to the involvement of trophic cells in the anterior horns. ere may be dementia and delusional in- ity.

The diagnosis of tabes during the xic stage is comparatively easy. Fre- ently other diseases are mistaken for es, and the early symptoms of tabes frequently overlooked or mistaken for er diseases. Crises are mistaken for ceral disorders, especially when occur- g during the preataxic stage.

Symptoms of this class should arouse examiner's suspicion, especially if a tory of syphilis can be obtained, or if tellar or pupillary reflexes are impaired lost. A condition frequently mistaken tabes is polyneuritis. In this disease have a rather close resemblance, but re are some distinctive features which ke the diagnosis comparatively easy to areful observer.

A patient of mine who was suffering m an attack of alcoholic neuritis was is mistaken for tabes by two prominent ysicians of this city. The patient died ut six weeks later from bulbar paraly- a frequent termination of this dis- e, especially when the cause is not hdrawn.

shall enumerate some of the differen- symptoms of these two diseases. dle symptom, loss of muscular sense, o-ordination, perforating ulcers, joint ons, osteopathies, Argyll-Robertson il, optic atrophy, visceral troubles, es, fecal incontinence, and paretic de- ntia, are symptoms of ataxia which are found in neuritis.

ensitive nerve trunks, amyotrophy, ma, lividity, epithelial changes foot- p, toxic amaurosis and rapid develop- nt of the disease are symptoms found polyneuritis, but absent in tabes. es is comparatively rare in females, ritis much more frequent in females n males. The gait in tabes is due to s of muscular sense, and it is with h knee action; in polyneuritis it is e to paresis, and the foot is not lifted dragged. The tabetic does not walk a straight line, the neuritic does. The ritic tends to rapid recovery when the cause is removed, the tabetic does not. No other disease presents a resemblance of sufficient importance to justify differentiation in this article. The prognosis of tabes depends upon the stage of development of the disease. Cells and tracts which have become sclerosed are, so far as is now known, beyond the range of restorative agencies. In the so-called benign cases the degenerative processes may be spontaneously arrested. Treatment instituted during the early stages does in many cases apparently retard and arrest the progress of the disease. Early optic atrophy may be considered a favorable indication of the arrest of degenerative changes. Symptoms of paretic dementia or bulbar extension are of unfavorable import.

In the treatment of tabes dorsalis there is some difference of opinion. To retard the development of the disease is, in a manner, a success. To arrest the disease and maintain the *statu quo* is viewed by many as eminently satisfactory. To completely arrest its degenerative invasion, to restore the partially impaired cells and their function, and maintain a symptomatic cure, may, indeed, be accepted as a medical victory.

Granting in occasional cases that there is a tendency to temporary arrest and improvement, and that this fact does and should disparage the verdict in favor of any method of treatment, yet it does not warrant the attitude of hopelessness taken by many who doom the victims of this disease without even a feeble effort to stay its ravages.

Dr. Church says, and there are many who concur in the belief, "In spite of the immense importance of syphilis in the causation of tabes dorsalis, it must be kept in mind that the nerve lesion is not comparable to the tertiary or secondary lesions, and is not amenable to antiluetic treatment." And this injunction is "kept in mind" by many who tell their patients that nothing can be done, to make themselves as comfortable as possible, observe the rules of temperate living, and await the inevitable.

A similar advice was given to a patient not long since, who was rapidly tending toward helplessness, and whose condition has improved fifty per cent during a few

months' treatment. In behalf of these unfortunates, I make a plea that we lay aside this stereotyped verdict, and make an earnest, intelligent effort in every case to rescue them, in part, at least, from the consequences which threaten them.

The treatment should be directed to the removal of any syphilitic processes present or suspected, to the improvement of the general health, to stimulate the functions of the cells impaired but not lost, to encourage restoration of co-ordination in the muscular system, and correct any incidental disorders which may retard or complicate the desired result.

Notwithstanding the views of many to the contrary, I believe that any stage or condition of tabes may be improved or benefited by properly directed treatment. I believe that the development of the degenerative changes can be arrested completely in nearly every pre-ataxic case, and that much of the lost function can be restored. I believe that these results may also be obtained in a large majority of the ataxic cases, and that this majority is reduced somewhat in proportion to the duration and intensity of the ataxia, and the abuse of the specific remedies employed.

My clinical observation aggregating fourteen cases in my private work has been so uniformly satisfactory as to warrant the deductions enumerated above.

In these fourteen cases, embracing a variety of conditions and degrees of advancement, all have responded to treatment in a most satisfactory manner. In every case the disease has been arrested and continued so to the present time. In nine cases, marked improvement in co-ordination, gait and general health, has persisted. In five cases the knee jerk has been restored to normal, all painful sensory symptoms have disappeared, dribbling of urine has ceased, and little evidence of the disease remains. In two cases the pupillary reflexes to light have returned to normal. In six cases the Rhomberg sign is barely noticeable with both feet close together and the eyes closed. In two cases the patients can stand upon one foot with the eyes closed.

I have demonstrated to my own satisfaction, at least, that the X-ray, when of sufficient penetration to obliterate t shadow of bony structures, will stimul cell activity in the diseased cord, fac tate the restoration of the lost functi in cells not completely destroyed, and lieve the crises and other lightning pai I am certain that the effluve of the h current, or by direct supersaturation pronounced in its effect on the metabo processes, and in facilitating the elimi tion of effete products of the disea That fourteen consecutive cases could perchance, be of the class which tends spontaneous arrest, is highly improbal and that any spontaneous arrest would followed by restoration of reflexes bladder tone is not probable.

May we not hope for advancement in therapy of this disease as well as tuber losis, cancer, and many other conditio as witnessed in the advanced therap tics of our day?

2301 West End.

[Written for the MEDICAL BRIEF.]

The Passing of General Anesthe in Rectal Surgery.

BY A. B. COOKE, A. M., M. D.,

Professor of Rectal and Genito-Urinary Disea Medical Department University of Nash ville; Fellow and Secretary American Proctologic Society, etc.
Nashville, Tenn.

From the patient's standpoint, chlo form and ether are the bugbears of s gery. Refinements in methods of adm istration and modification of the age employed have done much to lessen t danger and discomforts of general an thesia, but little to diminish the popu dread with which it is universally garded.

Adequate means of local anesthesia to-day the most conspicuous need of s gery, a need recognized and admitted the entire profession. The announceme of every new method and measure is ceived with open enthusiasm. Cocai eucaine, and the numerous later che icals of that type, ethyl chloride, spi analgesia, and even hypnotic suggesti each met with eager welcome, only to followed by disappointment as its limi tions became apparent.

While surgery in general has felt and ill feels this need, rectal surgery has ffered especially, and from the writer's oint of view, peculiarly, by reason of it. his statement is justified by several conderations. In the first place, diseases of e rectum and anus are, perhaps, more idely prevalent than those of any other rgan, and certainly a larger proportion them are of a surgical nature. Again, hen we stop to consider the character of e ordinary operations performed upon is part, the conclusion is unavoidable at they properly belong to the domain minor surgery. Yet the road to relief hich the surgeon is accustomed to point t to these sufferers usually begins with eneral anesthesia, and ends some weeks ter on emerging from the hospital, a utine which only the exigencies of major rgery should justify. It is not strange at the quack should have flourished and ttened in a field which the regular prossion has cultivated so poorly.

The writer would not be understood as plying by the title of this article that ctal surgery and general anesthesia ve been entirely divorced, nor that such end is ever likely to be attained. On e contrary, certain operations, as colosmy, resection, excision, etc., ranking they do among the severest known surgery, will probably always require r their successful performance those nditions which only the profoundest stemic narcosis can furnish. Happily ch operations are comparatively rarely manded.

What is claimed, however, is that the eat majority of the surgical ailments of ese parts are amenable, under local angesia alone, to radical treatment in hich nothing of thoroughness is sacrited, and many positive advantages ined. Credit for the method which renrs this possible is due to Dr. Gant, of ew York, not, strictly speaking, for disvering new principles, but rather for cognizing the value of old ones, and by instaking work perfecting the technic r applying them in rectal surgery.

Briefly, the principle of the method is ressure analgesia and its mode of applition, distension of the area to be oprated with sterile water. When the ethod was first announced, and its technic described, the writer was one of the many who doubted its feasibility. It sounded too simple, and seemed too good to be true. But a few days' observation of the method in the hands of its originator quickly brought conviction, and the satisfaction of a long-felt want realized. Within the past eight months I have employed the method twenty-seven times in a series of cases including fistula, prolapsus ani, fissure, and external and internal hemorrhoids. After ten years' experience in rectal surgery with the old methods, the results have invariably provoked astonishment.

In internal hemorrhoids, perhaps, the method has seemed most wonderful. I esteem it one of the rarest privileges of my professional experience to have been able to perform the radical operation for this condition in sixteen cases with the patients lying perfectly passive, or laughing and chatting with bystanders as the work progressed.

The purpose of this brief article, however, is not to voice the enthusiasm awakened by the success of a rather limited experience, but simply to again direct attention to the method, and to bespeak for it the cordial reception it merits. Following are a few of the advantages which the writer from his personal experience feels warranted in claiming for the method:

1. It is simple, safe and effective.

2. It eliminates the dangers and discomforts of general anesthesia.

3. Pain at the time of operation is usually absent, and always so slight as to be easily borne.

4. Post-operative pain is less by far than after the old methods.

5. Confinement to bed is a matter of expedience rather than necessity.

6. Detention from business is reduced more than half.

7. Under this method the hospital becomes a convenience and luxury rather than a dreaded essential.

8. It appears a thoroughly reliable means of relief in many cases which would otherwise be unsuitable for operation.

9. It robs these operations of their terrors, and makes it possible to reclaim this

work from the hands of the "no-knife" advertisers.

Faith in a surgical method is best evidenced by the use one makes of it. The writer makes use of the method herein referred to with increasing frequency, and, in the light of past experience, confidently believes that his need for general anesthesia in rectal surgery will continue to diminish.

Steger Building.

[Written for the MEDICAL BRIEF.]

Chemical Synthesis as Applied to New Remedies.

BY CHARLES E. CASPARI, A. B., PH. D.,
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The science of chemistry has for a long time been intimately associated with medicine, though, perhaps, at no time more closely than at the present day.

Every year sees vast numbers of new synthetic remedies brought on the market, which are purely the product of the chemist, intended for use by the physician. Many of these have proven themselves valuable, and are daily used by physicians all over the world. Thousands of products have been prepared, but on account of disagreeable secondary effects on the human system, have not met with favor.

Instances might be cited of synthetic remedies which are manufactured at the present day in large quantities, the preparation of which has cost much time and labor, but, perhaps, the most astonishing conquest in the field of chemical synthesis has been the production of artificial indigo. The example of indigo serves to illustrate not only the amount of time, labor and money necessary to accomplish a definite synthesis, but also illustrates the plodding perseverance of modern chemists.

Indigo is taken as an example, because of its manufacture in such enormous quantities, because millions of dollars are invested in the enterprise, and because the results on mankind of the substitution of artificial indigo for the natural are most far-reaching. About thi years ago the first attempts were ma to prepare indigo synthetically, hithe the natural product alone having be used, but it has only been within the l five years that the chemists' efforts ha been crowned with success. The synt sis of indigo has cost the labor of fi trained chemists working at only one ject for thirty years. The results ha been such that to-day the artificial pr uct has practically driven the natural d from the market..

The annual production at present of digo is about fifty-five hundred tons, w a value of fifteen million dollars. T acreage of land large enough to cultiva sufficient indigo plant for the producti of fifty-five hundred tons of indigo wou be about two hundred and fifty thousa acres. When indigo was first synthesiz a cry was raised that the land which h formerly been used for the cultivation the indigo plant would have to lie id that the people who earned their livi by cultivating the plant would be depriv of the means of livelihood, and that dire catastrophe would be wreaked up the country where indigo was grow The contrary, however, has been found be true, as the indigo plant was m largely cultivated in India, which, as well known, is subject to frequent perio of famine. Now, the two hundred a fifty thousand acres of land which we suddenly rendered available can be us for the cultivation of foodstuffs, a thus go far towards alleviating the s ferings incident to the famines of Indi

It is evident that three distinct adva tages accrue from the synthesis of indi viz., the people of India have been plac in a position to better withstand the e gencies of that country. The cost of digo has been reduced, and the quality the dye has been improved.

What has been said of indigo is true a less extent of probably all synthe remedies, that all have a specific acti on the human organism, and hence c be used, bearing in mind that specific tion.

Not only are new synthetic remed being put on the market, but many remedies which were formerly obtain from vegetable life alone are now p

pared synthetically, and of these the most important class is the vegetable bases, among which are many of our leading narcotics and stimulants. The increased manufacture of these products has reduced their cost, and has made it easier for the habitues of narcotics to obtain their favorite one. Increased precaution is, therefore, necessary on the part of the physician and pharmacist to see that these compounds are dispensed legitimately.

712 North Whittier Street.

[Written for the MEDICAL BRIEF.]

Post-Nasal Adenoid Vegetations in the Negro.

BY GORDON KING, M. D.,

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It is a fact generally conceded that no race has been found to be exempt from post-nasal adenoid vegetation, an affection so common to childhood in every country and in every climate, and one that is responsible directly or indirectly for many pathological phenomena of early life.

In reviewing the writings of different authors on the subject, however, one is impressed with the fact that very little investigation has been made in regard to the influence of race upon the etiology of the affection or any difference in the pathology or symptomatology of the growth as observed in children of different races.

Practitioners in the Southern States and especially those who devote part of their time to the children's clinics, have ample opportunity to observe that the negro exhibits many peculiarities, such as the great prevalence of tuberculosis, syphilis, small-pox, pneumonia, etc., which are accepted facts, and which can be traced to disregard and ignorance of the laws of hygiene and sanitation, morality, and their irregular habits and occupations.

Other eccentricities pathologic of the negro race are to be explained only by certain physiological and anatomical characteristics familiar to the student of anthropology and anthropometry. Evidences of these different influences can be found in every branch of pathology, and especially in diseases of the organs of special sense, do we find a fruitful field for observation and investigation along these lines. In the limited scope of this article, I can not go into the subject in detail, but merely desire to record briefly a few facts deduced from a large number of cases of adenoid hypertrophy in both the white and negro races.

As to the frequence of adenoid growths in the negro, it is a general impression that the condition is less frequent than in the white races, and while statistics might tend to prove this to be true, there are several reasons why the correctness of this impression may be questioned. In the etiology of the affection it is universally conceded that the so-called lymphoid diathesis is usually the underlying cause of the enlargement of the gland, and in a vague sort of way this lymphoid tendency is allied to what we call a strumous or tuberculous diathesis.

Some authors go so far as to maintain that the adenoid hypertrophy is always a feature of the tuberculous diathesis, a contention which, though not generally admitted, is strongly supported by the fact that the affection is very frequent in children of undoubted tuberculous predisposition, and that the tubercle bacilli have often been found in the enlarged gland. If this is true, then the negro who is predisposed to tuberculosis should be a common victim.

Other predisposing causes, such as bad sanitary and hygienic environments, malnutrition and exposure, account for the prevalence of adenoids among the poorer classes. The negro belongs essentially to this class, and, in addition, their habitual carelessness in regard to proper nourishment and clothing of their children is well known.

In view of these accepted facts, one is justified in the belief that adenoids are more frequent in the negro than in the

white child, whether such statistics as are available tend to this view or not. In my opinion, the true reason for this is not that adenoids are less frequent in the negro than in the white child, but that the laity is becoming more familiar with the objective symptoms of adenoids in their children, and then only the more intelligent classes who recognize in the dull expression, the open mouth, and noisy respiration, restless sleep, and other unnatural phenomena, some pathological condition requiring relief at the hands of a surgeon.

The negro, in his ignorance and indifference, pays little attention to these evidences of disease, and it may be only discovered when the child comes under the physician's care for some other illness, or an independent affection of the ears or respiratory organs.

Still another fact that throws some light on the subject is that owing to the racial characteristics of wide, roomy nasal cavities, broad pharynx, and large post-nasal spaces, peculiar to the negro, the presence of hypertrophic adenoid tissue in the nasal pharynx gives rise to less obstruction than in the white child, and hence, mouth-breathing and the train of symptoms depending on that condition are not so markedly in evidence. This is a matter of daily observation in the clinics of the Eye, Ear, Nose and Throat Hospital of New Orleans, where, in the past twelve years, the records show that more than five thousand cases of adenoid vegetations have been treated, of which about nine hundred were in negroes. Thus, the phenomena so commonly observed in white children afflicted with adenoids, such as the characteristic adenoid facies, irregularity and crowding of the teeth, the peculiar arching of the palate, the prognathous jaws, are rarely seen in full-blood negro children. This, in my opinion, is due to the fact, stated above, that even though the adenoid growth is large in the negro child, it does not cause the same degree of interference with nasal respiration. Nasal obstruction from any cause is less frequent and less noticeable in the negro on account of the natural conformation of the nose and nasal cavities.

These facts are, I believe, sufficient offset the apparent absence of adenoids the negro, as shown by the statist which I have obtained in a brief sur of the hospital records, and which sh that of the total number of negroes of ages admitted for diseases of the eye, e nose and throat, 3.7 have adenoids, a of the white, 6.7 per cent.

624 Gravier Street.

[Written for the MEDICAL BRIEF.]

Laboratory Diagnosis of Typhoi Fever.

BY CHARLES E. SIMON, B. A., M. D.,

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In the diagnosis of typhoid fever l oratory methods have now become pr tically a *sine qua non*. Especially int esting and important are the chang both morphologically and biological which can be made out in the blood. Qu characteristic is the comparatively l leucocyte count, which can generally recognized after the first few days of disease. This low leucocyte count may regarded as one of the most import points in the differential diagnosis of disease. Equally characteristic, perha are the deviations in the various perce ages of the leucocytes. While during first days an increase of the blood poly clear, neutrophilic elements undoubte occurs, a distinct drop subsequently ta place, which is offset by a correspond increase in the number of the small mo nuclear leucocytes. This increase comes steadily more marked, and c tinues well into convalescence. The eos ophilic leucocytes at first disappear, a remain absent until the beginning of c ervescence, when they reappear, a again reach normal numbers with the ginning of convalescence. This alte distribution of the various forms of l cocytes is undoubtedly one of the m characteristic features of the disease, a unfortunately only too little recogni by the general practitioner. The exa inations which are necessary to de mine the points in question are compa

ively simple, and require no elaborate apparatus.

Quite well recognized at the present ime is the value of the Widal reaction in yphoid fever, but unfortunately this ethod of diagnosis has not been avail-ble for the general practitioner, except n our largest cities where municipal bac-eriological laboratories exist. As is well nown, the Widal test depends upon the act that as a result of the typhoid infec-ion, bodies develop in the blood of the yphoid patient, which are capable of ausing an agglutination and arrest of otility of typhoid bacilli, even in com-aratively high grades of dilution.

The necessary outfit for the purpose of aking this test has heretofore consisted n a virulent typhoid culture, not more han twenty-four hours old, a microscope, nd an incubator. Such an outfit, of ourse, is not to be found in the office of very physician, and even where a micro-cope would be available, a virulent cul-ure of the typhoid organism would prob-bly rarely be at hand.

Recognizing the fact that the reaction n question is in a sense specific of the isease, it has been rather unfortunate hat physicians, in country districts es-ecially, have not been able to avail them-elves of this one aid in the diagnosis of he disease, which possibly exceeds in alue all the others.

In view of this fact, the recent discov-ry that the agglutination test can also e carried out with dead cultures of the yphoid organism is especially important. his fact has been utilized by Ficker, and t the present time there is on the mar-et a comparatively simple and inexpen-ive outfit, which will enable the general ractitioner both in the country and in he city to carry out this test in his own ffice, or even at the bedside.

A small amount of blood is procured y puncture of the finger, received in a terile cup, and the blood serum then iluted with normal salt solution in the roportion of one to ten. From this dilu-ion little tubes are prepared in which urther dilutions are made with a suspen-ion of dead typhoid bacilli in the propor-ion of one to fifty, or one to one-hundred, tc.

The liquid in these tubes, owing to the presence of the suspended bacilli, appears cloudy at first, but, on standing, the organisms are agglutinated; if the blood under examination has come from a typhoid patient, the little columns which are formed sink to the bottom, and the supernatant fluid becomes clear.

It will be observed that the reaction in this case is a macroscopical reaction, that no microscope is necessary, and no costly bacteriological apparatus, no virulent culture to injure the physician or his household.

With the introduction of this method into general practice, and especially into the country, it may be anticipated that the diagnosis of typhoid fever will be rendered less difficult in the early stages of the disease, and that from a prophylactic standpoint especially, much good will as a consequence result.

1302 Madison Avenue.

[Written for the MEDICAL BRIEF.]

The Importance of the Family Physician in Retro-Displacements of the Uterus.

BY W. P. MCADORY, A. B., M. D.,
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The most important treatment for the retro-displacement of the uterus, like the treatment of any other condition, is preventive. The family physician should be careful in instructing the mothers as to proper methods of living on the part of their growing girls, in order that the genital organs may develop properly. They should especially insist upon the habit of relieving the bladder and bowels promptly and regularly every day. They should be thoroughly impressed with this necessity, since a full bladder pressing upward upon the fundus of the uterus, and a full rectum having a tendency to elevate the cervix at the time of the development of the uterus often causing a beginning retro-displacement, and possibly some so-called congenital displacements and malformations.

The family physician, who is, as a rule, the sanitary officer for the school, homes,

etc., should see that the water closets are inviting and conveniently arranged at both places, so that there will be no hesitancy on the part of young girls to make use of them. If every physician will stop and think a moment, he will see the great responsibility that rests upon him in this respect, and how crudely he carried it out in the past.

It is recognized that accidents and mismanagement during childbirth, and immediately afterward, causes the vast majority of cases of retro-displacement in women who have borne children. As it is the general practitioner who has the care of women at this important time, he should carefully inform himself as to the best means of preventing these accidents, and treating them at the proper time when they occur, in order to prevent retro-displacement of the uterus. The most frequent accident incident to childbirth, and one that gives rise to most suffering, is an infection. There has been a great deal written, and more said, upon the necessity for surgical cleanliness in this operation, but I consider it the duty of everyone who writes upon this subject to insist upon surgical cleanliness, not only of the doctor, but of the woman as well, and all examinations during childbirth. Next to being surgically clean is the immediate repair of lacerated perinei and cervix. All of these three complications retard involution, consequently, if the woman is allowed to be up before the uterus is decreased in size and weight sufficient for the normal supports to hold it firmly, it falls backward.

The old custom of delivering a woman under a sheet, which is rapidly going out, and of depending upon digital examination to determine the presence of lacerations, has been, in my opinion, responsible for allowing tears to go unrecognized, consequently unrepaired. It is the duty of the physician who delivers a woman to make a careful examination after the placenta has been delivered, not only with his fingers, but with his eyes, and if there have been such tears, to repair them at once. The popular idea, for which the practitioner is largely responsible, that when a woman is torn in childbirth it is the doctor's fault, which we all recognize as erroneous, is also responsible many times for the attending physician re ing to admit that there has been a t because if he does, and insists upon immediate repair, the family will sider that he is to blame. Here the mo stamina of the physician will come i play until the people are educated as the true cause of these conditions.

A great deal has been written lately to the proper care of the woman dur the puerperium, and of making a th ough examination before allowing her get up. This is so important that much can not be said until it becor the general practice of every practitio of medicine who delivers a woman, carry out these teachings in their pr tice. Before a woman is allowed to up, she should be carefully examined to the condition of the perineum and vix, and the uterus should be exami to see whether it has undergone invo tion properly, and she should not be lowed to get up until this has been acc plished.

This condition is best brought about having the woman lie on her side in Sims position as much as possible, and her back as little as possible, and assu the knee chest position three or four tir a day, staying in that position ten or teen minutes. Hot douches twice a d properly given, that is water as hot as can be borne, allowing it to run slo through the vagina, so that at least o half an hour is consumed in using th quarts of water, the patient lying on back, with the hips raised. I frequen tampon the vagina of the woman in k chest position, using cotton tamp moistened with glycerine, or whate medication I think is necessary. And the woman has suffered from retro-d placements prior to this time, I frequen keep the tampons in until after she is lowed up, for at least a month after livery, supporting the uterus, and all ing the normal supports to unde proper involution. This will relieve cure quite a considerable number of th cases which have had retro-displaceme to begin with.

The acute retro-displacements in wom who have not borne children usually cur as a result of some accident or str producing severe symptoms such as p

n the back, lower part of the abdomen, nd in the limbs, which is usually so se- ere that it confines the woman to bed for veral days.

1908 Seventh Avenue.

[Written for the MEDICAL BRIEF.]

Gall Stones.

BY C. M. NICHOLSON, M. D.,
St. Louis, Mo.

The gall bladder is, normally, pear- haped, measuring three to four inches in ength, and one to one and one-half nches in width, having average capacity f twelve drachms. Its fundus is directed ownward and forward to the right, and ouches the anterior abdominal wall at point where the costal arch meets the uter border of the rectus abdominis. The xtent of peritoneal investment varies nuch in different individuals. In five per ent a distinct mesentery exists, so that he gall bladder may be moved freely in he abdomen. The walls of the gall blad- er narrow into the cystic duct, and a ear-shaped curve is formed, just beyond he first turn of which a stone may be mpacted.

There are a series of valvular projec- ions known as valves of Huster, ar- anged along the entire length of the ystic duct. They are crescentic shaped n foldings of the mucous membrane, laced alternately upon one or upon the ther side of the duct; the upper three or our are well marked. The cystic duct is ne and one-half inches in length, and oins the hepatic duct to form the com- mon bile duct, about three inches in ength, terminating in common with the uct of Wirsung.

From the days of Galen up to a com- aratively recent date, the belief was uni- ersal that gall stones were the result of gglutination of bile, induced by increase f heat in the liver. It is now known hat the chief constituents of gall stones, holestrin and bilirubin calcium, are roduced by special inflammatory changes n the mucous membrane of the gall blad- er, which results in desquamation of pithelium, and increased production of mucus. The bacillus coli and bacillus hosus are specific organisms con- cerned in the formation of cholestrin cal- culi. Stones may be either pure chole- strin, laminating cholestrin, ordinary gall bladder stone (in which no crystalline structure is visible), the mucous bilirubin, or pure bilirubin. They may be single, or their number may reach two thousand.

The characteristics of the enlargement of the gall bladder are, first, tracing the margin of the liver to a gradually dimi- nishing edge attached to the upper sur- face of a gall bladder mass; second, al- ways continuous with surface of liver; third, sharp projections over this margin. A stone may be present for an indefinite period without producing any symptoms. *Post-mortem* records show that in from six to twelve per cent of cases stones are found in the gall bladder; probably in a very small per cent have any symptoms been recognized.

A stone passing through the duct pro- duces the classic symptom colic; the pain in right hypochondrium referred to epi- gastrium, and there may be nausea, vom- iting, jaundice and epigastric tenderness with or without fever, and as long as the stone continues to advance in the duct, colic continues; when it becomes station- ary, there is marked cessation of pain.

The diagnosis of cholelithiasis mani- fested by the classic and well-recognized symptoms, colic, nausea, vomiting, local sensitiveness, and icterus, all of which appear in the order mentioned, has for the past hundred years been made without difficulty. The pain is never due to distention or inflammation of the gall bladder, though Kehr and Erich support the theory that the last named condition is responsible. This occurs when a for- eign body is being transmitted through the gall duct, the lumen of which is smaller than the diameter of the foreign body, and results from contraction of the muscular wall. When the stone enters the duct, either it passes into the duode- num, returns to the gall bladder, or be- comes lodged.

It is in those cases where the diameter of the stone is greater than that of the duct that the symptom colic exists. Ob- structive flexions of the duct never give rise to the colic. The symptom is, there- fore, absent in every type of biliary ob-

struction except those of foreign bodies, calculi, echinococcus, ascarides, clumps of mucus or polypi. Nausea and vomiting are reflex symptoms, and occur just as nausea and vomiting in obstructed appendix or ureter. Local sensitiveness is elicited by deep palpation below the ninth costal cartilage on the right side. Jaundice is present in about twenty per cent of cases, in the large majority of which enlargement of the gall bladder exists. In eighty per cent of cases of obstruction of the common duct, due to stones, there is contraction of the gall bladder, while in ninety per cent of cases of enlargements of the gall bladder the obstruction is due to other causes than stones.

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[Written for the MEDICAL BRIEF.]

The Continuous Bath.

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The term "continuous full bath" is applied to that class of bathing where the patient remains immersed in water up to his neck for many hours, sometimes days and weeks, in extreme cases even years, being taken out merely to attend to his physical necessities. Usually the bather is laid on rubber cushions or on a sheet suspended around the brim of the tub, and hence the term, "hammock bath," which corresponds to the German "Wasserbett." It is superfluous to use the word "warm" in this connection, because of necessity the bath must be so to permit a warm-blooded being to remain in it for such prolonged periods and we shall, therefore, briefly call it the "continuous bath."

According to its temperature it belongs to the neutral or indifferent baths, *i. e.* those that do not materially change the temperature of the body during the customary bathing period of from fifteen to thirty minutes. The temperature of the neutral bath, according to Wick, lies between 34.8° and 38.4° C. (94.6° and 101° F.), while others, like Kisch, (1) call it in round numbers 35-37° C. (95-98.6° F.). When the duration of the bath exceeds half an hour, it is called a prolonged, or a protracted bath. To draw a sharp distinction between th and the "continuous bath" is hardly po sible, and would serve no object, since is obvious that the physiological effec must necessarily be different at long duration.

So far as we have reliable sources information, Hebra seems to have be the first who had the courage to entru a human being for so long to the w element. Riess (15) during the 70's ma extended experiments with this, and sin then it has been applied in many place and for manifold diseases. Though t results have been mostly good and oft brilliant, and, indeed, often bordered the miraculous—for the treatment w resorted to only in such cases, perha where other methods were nearly, if n quite, hopeless—yet, on the whole, markably little is known of the "contin ous bath."

The technique of the procedure is si ple and sufficiently manifest from t above statements and the following e cidations. Moreover, this is unexceptio ably covered in the literature on hyd therapy, and we must refer to this in gard to the numerous details.

With the *physiology* of the continuo baths, it is, however, quite different. Ev the most thorough text-books on hyd therapy uniformly confine themselves a repetition of the earliest views, and f quently do not at all mention the cont uous bath as distinguished from the p longed bath. The fruits of the last twen years' research are almost wholly nored. For instance, according to Baru (2), and Kellogg (2), who at least scribe this form of bath under a separ chapter, its effects are exclusively "n ative," acting merely as a sedative up the nervous system, by means of the clusion of external irritants. Further, a result of Heymann's and Krebs' wor during the 70's, it is often assumed th the nervous irritation is reduced by i bibition of the end-organs in the sk Kellogg conjectures "that other bod functions" may be "affected, if not p foundly, at least to a noticeable and portant extent," but what he suggests partly obscure and partly no longer te ble at this time. Much more circumst tial and based on later results are t

elucidations of Kisch, but even these are neither unexceptionable, nor complete.

This confusion, however, with regard to the continuous bath is excusable. Views concerning the indifferent bath, in the usual sense of the word, have simply been applied to the continuous bath, since in most works it is not apparent where the former ends and the latter begins. The references in medical literature, nevertheless, that clearly deal with baths of at least six to eight hours' duration, have up to date become numerous enough that the attempt may be worth while to gather together whatever may belong in a common category. A very superficial examination of the exceedingly interesting histories of diseases so treated, soon shows that the old physiology must be entirely inadequate. It may be well, therefore, to first group the reported cases according to uniform points of view. A comparison of these with experimental work will then perhaps throw some light into the "how" of the physiological process.

The *first* group embraces diseases of the skin. It was these that Hebra, since about 1862, first treated with the continuous bath. Actuated by the favorable effects of warm and indifferent partial baths, he prescribed full baths in cases where it was not only a question of diseased extremities, but of a large portion of the body's surface. He left his patients in the water longer and longer until they soon remained immersed twenty-four hours. Only hesitatingly, but encouraged by good results, he prolonged the baths from two to six days, then still further, one to nine months, and, finally, kept them in the hammock bath just as long as the case appeared to require it. No injurious results were ever observed, except that after four to five days the thick epidermis of the soles of the feet would swell up uncomfortably, and these swellings would soon detach themselves with some pain, though this was alleviated by simply pressing the soles against a rubber cushion. An itching, papulous eczema also often appeared after eight to fourteen days, which soon vanished on inunction with ol. rusci.

In 1877, Hebra, Jr., (12) made an exhaustive report on two hundred and three histories gleaned out of five hundred cases, authentic data as to the balance being lacking. Among these were one hundred and twenty-seven burns of the most serious kind, of which seventy-one cases died and fifty-six recovered.

The decomposition of the blood, caused by the burn, with its consequences, was, of course, in no way influenced by the bath, but all other symptoms were, and in a most surprisingly favorable manner. Pain disappeared so quickly that one man, for instance, refused to believe that his back was as badly burned as the front of his body, which was visible to him. Infections of the wound, such as lymphangitis, erysipelas, and pyemia, were avoided, cauterization but rarely required, suppuration was sparse, new skin was readily formed, and the scars were better than under other treatment. Among fifteen cases of pemphigus, vulgaris was represented nine times, and foliaceous pemphigus six times. The former were cured, the latter died, of course, but life was prolonged, and suffering materially alleviated. In a case of confluent small-pox, complicated by pneumonia, the five to seventeen-day bath was applied; there was moderate fever, the fever of suppuration was barely noticeable, and the scars good beyond expectation. Gangrenous bubos were represented twenty-eight times, of which twenty-five were healed. Of these he says: "Where the necrosis of the web is no larger than the palm of the hand, an increase in strength is observable, even after forty-eight hours, the fever disappears, sleep and appetite set in, and with them the conditions of possible cure." Three phagedenic chancres arrived at a cure. Further, there are mentioned, large, obstinate syphilitic ulcers, phlegmon, gangrene of the skin. All these cases that were put into the water hammock were serious ones, and had defied other treatment. Similarly favorable results are constantly reiterated, and besides these, there are mentioned sores caused by contusions, inveterate psoriasis and eczema. Riess also treated bed sores in cases of diseases of the spinal cord with the continuous bath, and made the unexpected discovery that the original disease underwent remarkable improvement.

We now come to the *second* group, including diseases of the entire nervous system; in the first place chronic affections of the parenchyma, as well as the various forms of meningitis, where cerebral and spinal diseases are concerned. In all these affections local, as well as excentric pain, was alleviated, spasms and contractions relieved, and various forms of paralysis and ataxis were improved. Although I do not find any instances of tabetic crises mentioned, I believe, considering all things, that these would lose their horrors in the continuous bath. Moreover, there come under this head the various states of delirium and nervous agitation. The water hammock is, perhaps, the ideal hypnotic. Extravasations in cases of apoplexy, of various forms of meningitis, as well as cerebral tumors, have been treated by the bath with results that could hardly be attained by other means. In such cases it is the absorption of the infiltrations, and most certainly the absorption of the fluid exudations that turn the course more favorably, although the removal of cutaneous irritation, and the consequent ideal quiescence of the central organ may have some influence. It should be mentioned in this group that, according to Rose, better results are also obtained in cases of epidemic meningitis than have thus far been known under other forms of treatment. Furthermore, there are to be considered as adapted for the continuous bath anatomical injuries to the nerves, *e. g.*, seritus, obstinate sciatica and, finally, functional neuroses. Among the last named hysteria and hyperesthesia have been thus treated. Brochu (3) reports a case of acute chorea, "one of those serious cases that usually terminate fatally." As especially interesting I would conclude with Legendre, who recommended prolonged baths in cases of hyperchlorhydria.

The *third* group is composed of mental diseases. Bleuer (4) recommends the bath for acute psychoses, including melancholia; and along the same lines it is praised by Kræpelin, Alzheimer and Sander. We have circumstantial reports made by Alter (17), Wuerth (16), and from the clinic at Heidelberg by Beyer (5). According to the latter, cases complicated by bed sores, phlegmon and injuries, as well as patients who are uncleanly a maniacal, who tear off their clothing, et and, finally, epileptics and alcoholics a treated with the bath. Maniacal exci ment responds to it with almost absolu certainty. It is especially indicated d ing menstruation. It is of general int est in these reports that a permanent crease in the number of attendants w never necessary, that, on the contra this form of treatment made nursi easier for them. Despite the great nu ber of maniacal patients treated the di culties of handling them were no great and the patients submitted to the ba much more readily than was expect Besides, expenses for destroyed and soil linen, gloves, etc., were considerably le and all these reports establish the c tinuous bath as one of the best psych tric sedatives. "It dispenses with t greater portion of cells and isolati rooms;" they "regard it as a material richment of psychiatry." Lately syste atic attempts have also been made in t Manhattan State Insane Hospital, and t results fully confirm the above.

In the *fourth* group of diseases, which the bath is indicated, I place inc ient inflammations and exudations of kinds. Absorption of these in the ba has already been touched on in a numb of previously mentioned diseases. Un this head are to be classed the wonder results obtained in cases of rheuma and gouty deposits, concerning which must point, in addition to the fine s cesses of Hueter and Rose, to the expe ences of several decades at Bath Le Switzerland. Our literature further te of cases of pericarditis, pelvic exudatio sprains, contusions and fractures. Es cially remarkable is the unanimous pra where absorption of dropsies, due to rious causes, is concerned; dropsical domens, for instance, registered a dimi tion of six c. m. after one bath, and in c tain cases the loss in weight was up 1,500 grammes after an eight hours' ba

Finally, we add, as the *fifth* gro acute infectious diseases. But we m here anticipate that this group does in every respect fit into the baths un discussion, which should be strictly in ferent, while the baths under this h head are usually given considera

cooler: that is, even down to 31° C (88° F.), so that they should rather be classed with the baths that withdraw heat. Here again we owe the best observations to Riess, who has at his disposal the material from over one thousand cases of typhus. With respect of details we may refer to the works of this investigator, as well as to the lucid treatment of the question in Baruch's text-book. Nevertheless, room must be given to the conclusions arrived at in these works. According to these the continuous bath is—

1. More comfortable for the patient.
2. Applicable also in such cases that are not adapted for the Brand bath.
3. It influences fever, nervous phenomena, diuresis, etc., quickly and effectively.
4. It shortens the duration of the disease to a marked extent; and,
5. Causes little difficulty with regard to nursing.

Aside from typhus, the continuous bath has been tried and praised in connection with serious attacks of measles, scarlet fever and erysipelas (A. Rose). The observations of this author in cases of epidemic cerebro-spinal meningitis have already been mentioned in the second group. Finally, Perdijo has lately reported exceedingly favorable results with tetanus (6).

According to these citations the application of the hammock bath is, therefore, exceedingly manifold. It assumes a still more important aspect when we remember that, aside from the systematic experiments of Riess, and the reports from the insane asylums, only the most difficult cases of their kind, for which other methods were out of the question, and which until then had been persistent, were treated in this manner.

As already stated, a mere superficial study shows that the physiology of the continuous bath thus far laid down can not be complete. What effect could the avoidance of surface irritation produce in cases of dropsy, infections and the cure of wounds? Undoubtedly, therefore, much more potent influences must be present. Indeed, Kussowsky (7) has already called attention to the fact that even the indifferent bath of 34-35° C., and fifteen to twenty minutes' duration, appreciably reduces the surface, as well as the internal temperature of the human body, though not very considerably; and Stifler (10) established the proof that during indifferent sweet-water baths typical changes took place in the pressure of the blood and the amplitude and frequency of the circulation and respiration.

According to Landois (Physiology) the temperature of the human skin is 31-34° (35°) C. (88-93° (95°) F.); according to Oehler, 33.5-35° C. (92.3-95° F.). Riess puts the thermal point of neutrality of the bath—that is, the point at which there is neither withdrawal nor introduction of heat—between 34° and 35° C. (93-95° F.), while Wick allows a greater latitude, 34.8-36.4° C. (94.6-97.5° F.), and Liebermeister even calls baths 35-37° C. (95-98.6° F.) neutral. Generally the feeling of the patient is consulted, but as a rule 35° C. (95° F.) might be assumed as the medium temperature. According to the last-named investigator, the loss of heat during a fifteen to twenty-five-minute bath at 34-35° C. (93-95° F.) is the same as that in the air when dressed.

This temperature, therefore, may not, or may not materially, influence the temperature of the body during the duration of the usual indifferent bath, but we may nevertheless be permitted to assume, despite the lack of direct experiments, that at longer duration there occurs an increase in the loss. Kisch rightly points to Schueller's experiments with rabbits, where by immersion into an indifferent bath there occurred at the first moment a dilatation of the vessels of the pia mater, which, however, was quickly followed by a contraction, and a simultaneous sinking in of the brain. Judging by this experiment, therefore, the surface had become richer in blood, which is plausible enough when we simply consider that the bath in any event is still 2° C. warmer than the skin, and that the blood must, therefore, flow toward the latter. Now, since the blood is certainly warmer than the bath, it follows that with an increased quantity of blood at the surface must come an increased loss in temperature of the body. However little or negligible this may be in the neutral bath, during the continuous bath the sum total of the loss of bodily heat must be great. And

this fits in with the observation of all that fevers are reduced, even when the bath is not of the low temperatures mentioned by Riess. With the baths of this author the reduction in temperature has, of course, never been questioned, and the bath of Riess must be understood as a special form of heat-withdrawing water application, which can hardly any longer be called indifferent. Inasmuch as the withdrawal goes forward very slowly and with avoidance of any irritation to the skin, so that no reactive warming can take place, we must assume that the loss of heat is much greater than with other heat-withdrawing methods. It might be recommended, therefore, to distinguish this 31° C. (88° F.) bath, lasting up to twelve hours, from the continuous bath, and perhaps to call it, to correspond with the Ziemmssen bath and Brand bath, the Riess bath, or the protracted lukewarm bath, and to discuss it separately, along with other heat-withdrawing applications.

Increased loss of heat, it must be borne in mind, is equivalent to increased metabolism, and this is true not only of the non-nitrogenous substances, but, by effective lowering of the body's temperature, also of the albuminates. This, according to Lépine, Flavard and Formanek, is true not only of the albumen in the food, but of that of the body itself. In harmony with this Riess has found the excretions of nitrogen increased.

It was formerly believed that the activity of the skin ceased while bathing, and even that the skin absorbed water in the bath; views that can not be supported today. The warmer and the richer in blood the skin is, the more active it is. Ordinarily, the body's loss of moisture attains its maximum at 32° C., being about fifteen hundred grammes in twenty-four hours; beyond that perspiration sets in. That this is true of the bath also, Riess has certainly shown beyond question. For he observed, in the first place, considerable loss in weight and unquestionable decrease of existing hydropsy, even when the amount of urine diminished; and, in the second place, Riess and Willemin established the fact that there was an increase of chlorides in the water of the bath exceeding the proportional per cent of perspiration. In consonance with th are also Keller's results in regard to di inution of chlorine and phosphorus co binations in the urine. "The more rap removal of the fluid in the perspirato glands by means of the maceration a softening of the uppermost skin laye and the rejection of the older layers the epidermis, lead, according to the la of diffusion, to an augmented transud tion from the inner parts towards t surface."—Kisch. Finally, the loss CO_2 from the skin must be greater, cause the skin is warmer in the bath a deprived of its impeding horny coveri

The chemical composition of the blo must also undergo a transformation the continuous bath. The works of Poe Senator, Kuthie and Strasser (8) ma it highly probable that augmented exc tion of CO_2 renders the blood more all line through the change of neutral a acid phosphates into bases. Since blo alkalinity runs parallel with microbici properties, we may conjecture an inf ence upon infections also in this rega

According to these citations, moreov it seems that the earlier assumptions Heymann and Krebs that the irritabil of the nerves is reduced by saturation water of the nerve termini in the sk must fall to the ground, because not or does no absorption of water by the sk take place, nor any retention of it, but investigations, as we have seen, point an augmented excretion. Neverthele even without this imbibition, the qui cence of the nervous central organism maintained on account of the absence cutaneous irritants.

It is only on the basis of these cons erations that observations made at t bedside, which one and all point to mighty augmentation in metabolism, c be explained; only thus are we able comprehend the removal of deposits gout, chronic rheumatism, apoplexies, s ous exudations, meningitis, etc.

The above-mentioned experiment Schueller furnishes also an explanati of the favorable influence of the contin ous bath upon fever symptoms, if adopt the view that not the temperatu alone and the change in breathing a blood pressure are the causes of the tr ble, but the variation in the circulati

nd blood distribution, in harmony with hich Breitenstein demonstrated an ac-umulation of red corpuscles in the liver fter over-heating.

Equally undeniable is the regulating in-luence of the bath upon the circulation, n the sense of a flow toward the skin. Thus, in the first place, possible internal ongestions and inflammations, where not oo far advanced, are more quickly sup-lied with blood and thus improved; and, n the second place, an augmented trans-dation takes place in skin diseases which urnishes fresh material for the building f new tissue. An increased activity oward rebuilding is also favored by the oist heat of the bath, especially as in-urious products of wounds are immedi-tely and thoroughly washed off. Two xperimental works further confirm that he conditions for the cure of skin dis-ases are, as a matter of fact, the best. 'enzo (11) found in Bizzozero's labora-ory, as an indication of accelerated rowth in moist heat, an accumulation of itroses enormous as compared with *that* ar of the rabbit that had not been thus reated. Schaeffer (13) arrived at simi-ar conclusions by other experiments. He rew threads soaked in carbolic acid, sub-imate of mercury, or bacteria cultures, hrough the skin and found that upon pplication of moist heat no accumulation f white blood corpuscles resulted, and nly a considerable dilatation of the blood nd lymph vessels took place, accompa-ied by augmented saturation of the tis-ue, while by the application of cold (ice ags) these phenomena were not pro-uced. Both investigations find clinical onfirmation in the publications of Lang-nbeck, 1855 (14), Stromeyer, Esmarch, chede, Rose, Reclus, Hamilton, Fraser, lodges, etc., concerning the accelerated ure of affections of the extremities by neans of warm, prolonged local baths, hich, in their turn, explain the successes f the full bath.

In conclusion, we might thus sum up he effects of the continuous bath: That :—

1. Acts quiescent upon the central ervous system.
2. Changes the circulation, in the ense of disencumbering the inner organs nd diverting the blood toward the skin.
3. Favors the nutrition of and the heal-ing processes in the skin.
4. Augments heat withdrawal greatly.
5. Accelerates metabolism.

Vast clinical experience and experi-mental investigations justify the asser-tion that the continuous bath constitutes an exceedingly effective remedy, which, though apparently troublesome to admin-ister in some respects, justifies expecta-tion of good success, where other, less la-borious methods, fail. The inevitable in-ference from all this is that it would be desirable were the continuous bath to find wider consideration.

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[Written for the MEDICAL BRIEF.]

Is Prostatectomy the Cause of the Enuresis that Sometimes Follows This Operation?

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In discussing this subject, we should, perhaps, review briefly the anatomy of the urinary bladder, especially its musculature and nerve supply, and the prostate body, in their normal conditions, and in their relations to each other.

The prostate gland is located at the neck of the bladder. Its base is in contact with the bladder wall. Its apex is directed from the bladder, forward to the posterior layer of the triangular ligament. The prostatic urethra passes through the gland, somewhat nearer the upper than the lower surface. The bladder wall consists, partially, of one muscular coat, which is divided into three layers. The fibers of the external layer originate from the posterior surface of the os pubis, and from the capsul of the prostate in front of the gland. From this narrow origin they diverge, passing longitudinally over the anterior surface of the bladder to the fundus, over the fundus, and back over the posterior surface of the bladder converging as they return, to be inserted into the capsul of the prostate posteriorly.

This layer of the muscular coat is known as the detrusor urinæ muscle. The middle layer of this muscular coat consists, mainly, of an aggregation of muscu-

lar fibers surrounding the neck of the bladder, and is known as the sphincter vesicæ. It is in contact with the base of the prostate. It is somewhat misleading to use the term neck in connection with the bladder. The bladder really has no neck, or projection from it, such as we usually term a neck. The urethral outlet, and the structures about it, are called the neck of the bladder, but there is no projection from the bladder wall.

To illustrate: If we were to make a small opening in the side of a football, and into this opening place a rubber tube, and then make a coil three or four inches in diameter, in each turn of which the strand is a little smaller than the preceding one, from the center out, leaving a hole in the center of the coil; and, if we should slip this coil over the rubber tube and back against the side of the football, and fasten it there; then if we shou'd mold a piece of putty into the shape and size of the prostate, and make a hole through it and slip this over the rubber tube, and back against the coil, we would illustrate, in a homely way, the urethra, sphincter vesicæ and prostate body, their relations to each other, and the neck of the bladder.

We must remember that the base of the prostate is in contact with the sphincter vesicæ, and that it measures, normally, a little more than an inch transversely. The internal layer of this muscular coat is of little importance. Its fibers are arranged like those of the external layer.

The musculature of the bladder is controlled by nerve fibers, from the vesicle plexus of the sympathetic system, and by branches from the third and fourth sacral nerves. The branches of the sympathetic system which supply the sphincter vesicæ, and the detrusor urinæ at the neck of the bladder, pass with the middle and inferior vesicle arteries, along on each side of the vesicle trigone, and close to the posterior border of the normal prostate, to the muscles they supply. The function of the urinary bladder is to receive and eject the urine. It performs this function normally, as follows:

The urine flows into the bladder (the bladder being in a perfectly passive state), until such a quantity has entered as to cause a stimulus to the nerve ters. This quantity varies with diffe individuals. The detrusor urinæ mu then contracts, forcing the urine in bladder directly to the urethral ou The sphincter vesicæ then contracts u the urine, and, both muscles workin unison, forces the stream of urine the urethra, and against the exte sphincter which surrounds the memb ous urethra, and which is known as compressor urethræ muscle. This mu is controlled by cerebro spinal nerves, is subjected to the will of the individ The pressure of the urine against muscle causes the desire to urinate, the escape of the urine is controlled the will of the individual, exerted thro the nerves controlling this muscle, aided in no small degree by the ac of the cerebro spinal nerves distrib to the walls of the bladder. By this rangement the individual controls flow of his urine for a long perio time.

The above being the normal relatio the structures to each other, and the mal operation of the bladder under t conditions, what deviation from should we expect from an enlarged p tate? First, let us note the changes take place in the musculature at the n of the bladder. As the prostate enla the origin and insertion of the detr urinæ muscle broadens, or its fibers come separated more and more as process continues. It is well known the gland enlarges, sometimes to fou five times its normal size. In such c the origin and insertion of this musc extended four or five times more tha normal. It is obvious that when muscle now contracts, it does not di the urinary current directly to the thral outlet, as it normally did, but space four or five times as large, an there is no depression at the neck of bladder, or trumpet-shaped mouth to urethra into which the urine flows, forced against the side of the bla wall. It is plain that a force applie this manner, to the volume of urin the bladder, would be much less effic in emptying the bladder than if it normally applied.

We also know, by careful dissection, hat there is a close connection between he fibres of the detrusor urinæ muscle nd the fibers of the sphincter vesicæ. It s not hard to understand, then, that hen the fibers of the detrusor urinæ uscle are spread out to five times their ormal distance, the fibers of the sphinc-er vesicæ, to which the detrusor fibers re attached, must be rendered inefficient. ts contractile powers being overcome, t can not fulfill its function normally. Hence, if there were no other disturbance han that to the musculature, produced in his manner by the enlarged prostate, ysuria would result. But when we con-ider the well-known facts, that the hy-ertrophied prostate is very susceptible to he influences of cold and wet, and that s a result inflammatory processes are set p in it many times, and lying as it does n close contact with the sphincter vesicæ, nd the detrusor urinæ having its origin nd insertion in it, how unavoidably this nflammatory process must involve these uscles, and adhesions take place, bind-ng them all together, and destroying very semblance of their normal action, nd when we further consider that the nlarged prostate has impinged upon the erves and their ganglia which supply hese muscles, and has thus greatly in-erfered with their action, if not com-letely destroyed it; when we further nsider that the enlarging of the pros-ate is a slowly progressing condition, re-uiring years, and that these muscles and erves are encroached upon slowly, the rst involved being under the ban many ears before the last are involved, hence robably always dead, before a prostatec-omy is thought of. When we consider ll of these things that do happen, and re inevitable consequences of a hyper-rophied prostate, then we know that dys-ria, enuresis, and complete stoppage of he urinary flow, are inevitable conse-uences of this trouble.

For what do these patients seek relief? urely not from an enlarged prostate. hey desire relief from their urinary roubles. Why do we advise and do the peration of prostatectomy? Not simply or the removal of the prostate, for that s a benign thing, and in and of itself oes no harm. We remove it because it has destroyed the normal function of certain organs by disarranging them, and by causing such conditions in them as to make them useless, and urinary troubles are the result. We take away this enlarged body so that the organs it has crushed and distorted may assume, again, as nearly as possible, their normal condition and function.

Is it strange that some of these urinary troubles, in a few cases, persist for a time after the operation? Is it not more of a wonder that the operation cures such a large per cent, and so promptly?

Much has been said, and written, about how to perform the operation, so as to avoid the catastrophe of enuresis and other urinary troubles. Much has been written attempting to explain how the nerve supply to the various organs controlling micturition in health, are injured by certain methods of operating, and not effected by other methods; hence, enuresis or not, according to the method of the operator. The facts in the case being, all the time, that all the urinary troubles they are trying to charge to the operation were present before the operation was thought of, and had been, in many cases, for years, and were the only conditions which suggested the operation.

Have you forgotten, my dear doctor, that when some of these old patients came to see you they were wearing a napkin, folded and held in place in such a way as to absorb the dribbling urine, and the good wife who accompanied them carried a little hand satchel containing other napkins to take the place of the saturated ones? If you have forgotten these, you could not have forgotten the stained under-clothing, and the smell of urine about them. This was all before the operation, was it not? Then why charge these disagreeable things to the operation, and seek a method of operating that will not produce them? We all know, if we think at all, that prostatectomy may not cure the trouble for which it is done at once. It is not like an appendectomy which removes the offending organ in a few moments, and with it the whole trouble. When we remove the prostate, we only put the organs, which are damaged, in a way to recover, and then trust them to the good offices of

time and nature. How many thousands of operations have been performed upon the male urethra for stricture, many times portions of the urethra being completely obliterated by disease, and the most diligent search failing to find it, by reason of which an artificial urethra has been substituted for the lost portion, the walls of which are cicatricial tissue, and have to be sounded, more or less frequently during life, to keep them from closing.

Surgery is replete with operations wherein large vesicle calculæ have been dragged the whole length of the urethra, causing more traumatism than could be inflicted by a prostatectomy, and yet enuresis is not a sequela of these operations. This is sufficient proof that enuresis following prostatectomy is not due to the handling of the urethra during the operation. The bladder has been operated upon for all kinds of troubles, and subjected to traumatism of the severest nature, hundreds of times, without producing enuresis. In view of these facts, is it just to charge the enuresis that occasionally follows prostatectomy to the operation?

Doctors do not, as a rule, belong to the miracle-performing fraternity. If a thing is dead, it must remain so. The surgeon can not revive it. If a hypertrophied prostate has so impinged upon the muscles and nerves of the bladder as to place them beyond the powers of nature to restore, they will remain in that condition after the prostate is removed, and the patient will be deprived of their services the rest of his life, and must endure it. If the structures are only half dead, when the prostate is removed, the patient must bide his time until Nature can revivify them.

We do not wish in this paper to convey the idea that the obstruction to the urinary flow is never purely mechanical, due to the enlarged prostate, or some portion of it. We know this is often true. We do not admit, however, that enuresis follows prostatectomy in these cases. On the contrary, we are more and more convinced that it does not.

As to the surgeons who have reported hundreds of cases of prostatectomy, with no urinary troubles persisting after the operation, I should feel much better satisfied with a consultation with their patients than with their writings.

4625 Greenwood Avenue.

[Written for the MEDICAL BRIEF.]

Nursing.

BY EVELEEN HARRISON,
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MODERN METHODS OF NURSING.

We are advancing with rapid strides in this wonderful twentieth century, and as we swing along through the years, reaping to the full the harvest of successful enterprises, planted by our forefathers we are inclined to look back a trifle skeptically at what we used to call "the good old days," encircled assuredly by a halo of romance, but when viewed through the lens of modern civilization, and analyzed under the high light of modern discoveries, present a woeful lack of what we now regard as the very necessities of everyday life.

A patient recovering from a surgical operation, related thus her interesting experience:

"I dreamed, while under the influence of the anesthetic, that I was lying in a large room, every inch of which was filled with eyes—the eyes of all the women who had ever lived throughout the ages—and these eyes were fixed upon me with intense earnestness, watching to see whether I fully realized the blessings of modern surgery, and modern methods of alleviating pain. These eyes were filled with the suffering the women had lived in their lives, and seemed to be jealously on guard, to make sure that I understood and was properly thankful for the great discoveries of the age in which it was my privilege to be alive."

This little illustration touches the heart of our subject, for in no other branch of science has such marvelous development come to light, as in the science of medicine, and in no department of medicin have there been greater improvement than along the line of nursing.

"Sairy Gamp," placed side by side with an up-to-date trained nurse, makes but a sorry spectacle, and although she was a

exception even in "the good old days," still the fact that she was tolerated, and the tales we have been told of the truly remarkable way sick people were cared for, makes us glad to be alive in the twentieth century, as long as it is ordained that mankind has to undergo the "ministry of suffering" in the shape of bodily ailments.

There are few modern towns, great or small, without a well appointed hospital, and staff of trained nurses; at the same time, there are thousands of homes scattered over the country, as well as in towns and cities, where, for obvious reasons a trained nurse is not available, and home talent takes her place.

The thoughts and suggestions gathered from the long experience of the writer, are gladly passed on to these home nurses, to be of service to them when "comforters are needed much, of Christ-like touch."

AN UP-TO-DATE ROOM FOR THE SICK.

Let us commence at the foundation, and build up for our use an up-to-date room for the sick.

Just picture to yourself, fair reader, the kind of room you would select should you be called upon to lay down for a time the life of active service, and take up the hard duty of serving by patient endurance.

A large room? Surely, because more airy, more restful, far less trying to tired nerves. With the many duties of the nurse, requiring much passing backwards and forwards, a good sized room is a help to both nurse and patient; again, a large room implies two windows, an untold advantage when we touch the question of ventilation and light. When a choice of room is possible, especially if preparing to battle through a long, tedious illness, always choose a room with a fireplace. A cheery open fire forms a bright spot, even on the gloomy days, and unconsciously has a strong influence in toning up the mental and physical health of the patient. It is difficult to remain depressed with such a bright comrade as an open fire, filled with beauty sparks, and we may add another advantage, its aid in securing good ventilation.

An important point to be remembered in our selection of a room is quietness. Take your patient as far as possible from the family living room, and the noise of the kitchen. An upstairs room is best, even at the top of the house, and do not hesitate to take the sunny side.

"A glare of sunshine pouring in on the sufferer!" you exclaim. Far better, indeed, than a room without a ray from our life-giving friend; besides, dark blinds, window shades and screens will "temper" the glare to any desired tone, and for a few moments every day a warm bath of the glorious light will do more for your patient than oceans of medicine, and put color into his thoughts as well as his body.

Ventilation—few people, even in these modern days, understand the absolute need of good ventilation in health, and fewer still recognize its importance in sickness. We all acknowledge that oxygen is in reality the very breath of life, and know that in many severe illnesses a large supply of oxygen has frequently turned the balance when life has been shaking hands with death, and yet in many homes fresh air is resolutely shut out, day after day, and the used-up atmosphere breathed in and out of the lungs by all the family, until the doctor has to be called in to prescribe for many troubles that might have been avoided by the use of plain common sense.

When one comes to a sick man, battling for his very life, pure, fresh air is almost the best help one may give him, so through the open windows let in plenty of "God's out of doors," and the fight will be half won.

In the patient's room the windows should be left open at the top a few inches, night and day; hot air rises, and cold air descends, so the fresh air will circulate slowly around and down through the room without blowing directly on the bed, or causing a draft.

Should there be only one window in the room, open it a few inches above and below, slip a piece of firm cardboard, or thin slat of wood, over the lower opening, so that the air may enter in an upward direction, and a fresh supply of oxygen will always remain in the room, in "heaven's sweetest air."

One of the many foibles which have found their grave, in this age, is the one

claiming that the night air is bad for people, and should be shut out of the house. As a matter of fact, it has been proven that the night air is pure and healthy, and even more desirable than the air during the daytime, so let us gratefully inhale all we may.

If the patient still clings to the worn-out theory of not changing the air of the sick room, do not try to argue—argument with a sick man is unwise, and utterly unconvincing—but open the window in an adjoining room, leave the door open between, and he will gain some benefit in spite of his perverseness.

HOSPITAL TRAINING APPLIED IN HOME LIFE.

And now in regard to the furnishing of the room for the invalid: Infectious fevers, or major surgical cases, require a room specially prepared, about which we will talk in a succeeding chapter; at present we shall consider the preparations in an ordinary case of sickness.

First, the bed, a single iron bedstead, is, without doubt, the best, and in a severe illness is necessary, but under ordinary circumstances the patient remains in his own bed; one point of importance, however, is a hair mattress.

There may be a warm corner of the heart reserved by a few old-fashioned people for the feather bed of yore, but it may well be numbered amongst the relics of the past, and certainly has no place in a room where coolness, cleanliness, and facilities for nursing reign supreme.

The bed should stand out from the wall on all sides, to allow a free circulation of air, and sufficient room on three sides for the nurse to reach the patient easily.

On no account allow the bed to face the windows. If no other way is possible, put the patient's head at the foot, so that his back should be turned to the light. Have you ever remarked that in the majority of bedrooms one enters, the beds face the windows? and for two or three hours before rising, the occupant has a glare of light pressing in on the eyeballs, which eventually must cause trouble of some kind, for the eyes, obliged to face the light, and used every moment of the day, require eight or nine hours rest from light, if we would preserve their usefulness and clearness to the highest point.

Might not the early morning headache which clouds the temper of some people be due to the disregard of this fact?

To return to our sick room, in many diseases the eyes are weak, and must be guarded from too vivid a light, so let us think of this when arranging the bed, and, in addition, place a screen at hand that may be used when required between the window and the bed, or to screen the light from lamp, gas, or candle.

A screen is indispensable in the sick room, for many purposes, and if one is not obtainable, we must invent a substitute. The clothes horse from the laundry, covered with a soft shade of art muslin, makes an admirable screen, or one might fasten a strong cord, across the room, between the window and the bed, and hang a curtain on it to be moved backward and forward at will.

A small table close to the bed is most useful, also a couch, and one or two easy chairs without rockers—as the constant movement is trying to sick people; add to the list a bureau and side table, and the necessary furnishings of the room are complete. It is good policy to have the room as free from other furniture as possible; the air will circulate better, and the room is far easier to keep clean and in good order. Many people, when sick, are very nervous, and it confuses them to see a variety of things around, in the shape of bric-a-brac, drapery, or heavy ornaments. Apart from this is the all-important question of the hygiene of the sick room, and one may readily see how much time it would take to dust and cleanse an elaborately furnished room, to say nothing of the lodging house for germs caused by an accumulation of trifles.

Heavy curtains should be removed, and simple white muslin ones substituted. A few interesting books, pictures and magazines lend a home-like air to the room, while flowers—"God Almighty first planted a garden"—fill the very air with healing, so powerful they are to uplift our inner selves, and give us strength to overcome the bonds of sickness.

All the necessary appliances for use during the illness, viz., medicine bottles, glasses, feeding cups, surgical dressing, etc., are relegated to a closet, behind a

screen, or to an adjoining room well out of sight of the sufferer, for a model sick room must be so arranged as to contain nothing which may continually impress the patient with thoughts of sickness.

A long row of sticky bottles, or surgical dressings, ranged on a table in full view of the patient will never for a moment allow him to forget that some horrid tasting medicine has to be swallowed at regular intervals, or that a painful dressing has to be undergone.

Cheerfulness should be the dominant atmosphere, the keynote of the room, and no gloomy thoughts, or gloomy faces allowed to cross the threshold. When the "home mother" occupies the chamber of suffering, all knowledge of household cares and household disturbances should be rigorously excluded, and each member of the family do his share in promoting peace of mind to the invalid, by upholding this rule, and bringing only bright, cheery news, and pleasant out-door tales, to fill the mind of the invalid with happy thoughts, and thus hasten her recovery.

In regard to the temperature of the room, about 70° F. should be maintained, except in cases where the patient has a very high fever, when the thermometer should not average much over 65° F.

Early in the morning—between two and five o'clock—the atmosphere is cooler than at any other hour, and as the vitality of the body reaches its lowest point at the same period of time, extra blankets must be ready to throw over the patient; during a serious illness, especially in the care of an old person—hot drinks are required, in these hours, hot water bottles to the feet, and a close watch kept on the pulse, lest it flicker and die away in the "wee sma' hours anent the dawn."

202 West Seventy-fourth Street.

[Written for the MEDICAL BRIEF.]

Cerebro-Spinal Meningitis.

BY R. M. GRISWOLD, M. D.,

Kensington, Conn.

In the June number of the BRIEF I note two articles upon the above subject, one by Dr. Annie K. Bailey, of Danbury, Conn., the other by Prof. Henry N. Read, of the Long Island Medical College, Brooklyn, N. Y.

In view of the gravity of this disease, and the great apprehension occasioned by its appearance in a community in epidemic form, not only among the laity, but among the profession as well, and in view of the further fact that little is really known either of its etiology or pathology, it becomes one writing upon the subject for publication to be at least reasonably sure of their facts before making positive and unguarded statements such as are made by both these writers. Such a course is especially to be deprecated when emanating from such a supposed source of authority as a professional teacher in a medical college, whose published statements are supposed to be founded on facts already demonstrated, or capable of demonstration.

Meningitis, both spinal and cerebral, has been specifically recognized and carefully studied for more than one hundred years. For the past two years, no disease, with the possible exceptions of cancer and tuberculosis, has been more thoroughly and scientifically investigated than cerebro-spinal meningitis, and yet there is no disease of whose cause and successful treatment we know so little.

Under the circumstances it is more commendable to admit one's ignorance than to pretend to a definite knowledge, which those of us who have had a long experience with this disease know is not possessed, at the present time, by either layman or profession.

With an assurance which should be displayed only in the presence of absolute knowledge, Dr. Bailey says, "Cerebro-spinal meningitis, or spotted fever, is caused by a change in the blood constitution," or "a deterioration of the blood caused by a gradual accumulation of nitrogenous waste products therein," and then goes on to describe the poisonous effects of these waste products upon the nervous system, "causing the characteristic hemorrhagic spots."

This explanation might do very well, if it did not apply with equal force to rheumatism, gout, and other forms of auto-infection, but when we remember that the very large majority of cases of meningitis, especially cerebral, occur in children, often in infants, in whom the "gradual accumulation of nitrogenous

waste products" is very much less than in adults, I think the Doctor will pardon me for suggesting that this interesting, but delusive theory, could not have been evolved as the result of a large experience in the observation and treatment of this most elusive and deceptive disease.

The Doctor further goes on to state that "The deterioration of the blood, which is an essential factor in spotted fever, is also caused by a solution of the red corpuscles of the blood, which manifests itself in the hemorrhagic spots, and is due in a proportion of cases to the pernicious effects of coal-tar products," etc.

In reply to this statement, I wish to say, first, hemorrhagic purpura is by no means characteristic of cerebro-spinal meningitis. It is as well characteristic of certain forms of scurvy in children, especially Westhoff's disease, is often seen in the rheumatism of children, also in splenomegalia, marked by gastric and cerebral disturbances, pain, diarrhea, and vomiting, a case of which I have seen diagnosed as cerebro-spinal meningitis by one of the best diagnosticians in New England (and no discredit to him). It was characteristic of the old-fashioned typhus fever, which usually had associated with it a more or less severe form of meningitis, from which came the name "spotted fever," now quite wrongly applied to all cases of cerebro-spinal meningitis, except traumatic. These hemorrhagic spots are much more characteristic of low forms of chronic malarial poisoning than of meningitis, and yet the Doctor assures us, with great positiveness, that they are due to coal-tar products, "in a proportion of cases." This is another case where we are constrained to ask, "How do you know?" and, do you not know that cerebro-spinal meningitis, typhus, malaria, scurvy, and all other conditions associated with purpuria, were common long before coal-tar products were known?

Prof. Read now announces with equal positiveness that "the cerebro-spinal variety of meningitis is due to the diplococcus intracellularis."

At this point possibly an apology may be due for the presumption of an obscure country doctor, who for thirty years has been obliged to draw his deductions from his observations of, and experiences in, combating actual disease, rather than from laboratory work, to one holding an honorable position in a high-class institution of learning, and whose spoken and written word should carry with it the weight of fact, unobscured by theoretical vagaries.

Perhaps I may also be pardoned for asking a pointed, but, it seems to us, pertinent question, which may seem to imply a doubt as to the positive certainty of the Professor's statements. Nevertheless we presume to put the question, viz., "How do you know that the diplococcus intracellularis alone produces cerebro-spinal meningitis?"

The fact that it produces fatal meningitis in guinea pigs is not proof that it produces it in the human.

The fact that it is found in cases of spinal meningitis is not proof that it is the producing cause, any more than the fact that the Klebs-Loffler bacillus, found in diphtheria, is proof that the bacillus is the producing cause.

As the Klebs-Loffler is found in many people who have not diphtheria, so the diplococcus intracellularis is found in many who have not cerebro-spinal meningitis.

The presence of either germ is presumptive proof that it is productive of the disease attributed to it, but presumptive proof ought not to warrant positive assertion, and this same diplococcus is found in purulent empyema, and in certain forms of septicemia.

Dr. Read states, further, "Diagnosis of the cerebral variety of meningitis is readily made."

I should wish to modify this positive statement by saying that in an experience of thirty years, during which time I have seen a larger number of cases of cerebro-spinal meningitis than falls to the lot of the average practitioner, either urban or rural, I have learned that the disease is frequently hidden in obscurity, and often not to be accurately and positively determined by the most acute diagnostician.

The late Prof. Alfred L. Loomis once said to me, while seeing a case in consultation, "It looks like a case of cerebro-spinal meningitis, but the symptoms are quite obscure, and only a *post-mortem* will determine it."

Theoretically, the diagnosis of the disease is simple, but brought into frequent contact with it, we are often forced to admit there are many things we do not "know," and the more one sees of meningitis the less he will be inclined to express any very positive opinion upon either its causation or treatment.

One further criticism of Dr. Read's article: He says, "The fever, as a rule, is not very high." His modifying words, "as a rule," I believe to be correct, but one of the most frequent and characteristic signs of meningitis, especially cerebral, is the erratic temperature. Frequently decidedly sub-normal, it may, in a short time range from 103° to 106° F., and extremely high temperatures are not uncommon. Neither is the extremely high temperature of necessity an indication of fatality. I have a little patient now, whose temperature on one occasion, three weeks ago, reached 109° F., and he stands a good fighting chance of recovery.

A few words as to the results of my personal observations upon this disease:

First, I think it will be found that the history of cerebro-spinal meningitis epidemics for the past one hundred years will confirm the statement that the disease almost invariably follows a prolonged and cold winter.

Second, That a careful investigation of each case will show that most of them have been preceded by a recent and generally severe case of grip.

Third, That when two or more cases have occurred in the same family or house, both cases were due to the same primary cause, but there is a possibility, by no means yet proven, that there exists a certain amount of contagion capable of conveying the disease from the infected to the well.

Fourth, That no specific plan of treatment has yet been demonstrated as successful. The plan of Thomas Watson, and other observers of seventy-five and one hundred years ago, is not improved upon by later-day methods. Absolute quiet, plenty of fresh air, a nourishing liquid diet, the judicious use of opiates, circumscribe our range of remedial agents.

In my own hands, I have had more than the usual per cent of recoveries following the use of hyoscyamine, codeia or morphine, and aconite, supplemented by the cold pack, and cold rectal injections, but I should not wish to recommend my method as specific, or commend it as superior to any other treatment which is dictated by ordinary common sense, and the only thing I object to in others is the putting forth of unfounded theories as facts.

The simple truth is, we do not know what causes cerebro-spinal meningitis, neither do we know what will cure. We know as much as our grandfathers did about it, but no more. We look to the future with hope and the belief that some investigator will shed the light of certainty upon a path which is now entirely dark, but we have to admit, if we are absolutely honest with ourselves, that at present our knowledge of the cause of meningitis is equaled only by the profundity of our ignorance as to its proper treatment, and that any theory as to its cause can be readily disproved by a fairly accurate observer of plain facts.

[Written for the MEDICAL BRIEF.]

Malaria.

BY ALEX. B. MCCASKELL, M. D.,
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Thirty-six years ago, when fresh from college, where I had been lectured to give quinine in small doses, at frequent intervals, in order to subdue malarial influenza, I made plantation contracts to care for the sick in that notoriously malarial lime belt in Houston County, Georgia, and my patients as well as nurses were negroes exclusively and chills and fever the prevailing malady. I would give the purgative and leave the quinine to be given by the nurses in small doses and at frequent intervals (as I had been lectured to do). I found that some of my patients got well at once and others lingered, which fact puzzled me no little, and upon a close and vigorous investigation I discovered the cause, *i. e.*, the nurses of those who rallied first, rather than be troubled to give the quinine as prescribed, would give it all in one or two portions: hence the results stated (experience vs. teaching).

[Written for the MEDICAL BRIEF.]

Some Practical Items.

BY E. R. ELLIS, M. D.,
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One of these is on the subject of *post-partum* hemorrhage, or that which swiftly follows the conclusion of labor. The mouth of the womb becomes occluded with clots, and that organ is then filled with blood without the doctor becoming aware of it, unless he is very watchful. Such a case occurred to me a few days after my graduation in 1857, and such cases occur all too frequently in every vicinity, even to this day. The patient will die right under the eye of the doctor, even before he becomes aware of the true situation. He then has to expain that it was "heart failure" or a "mysterious Providence," in order to let himself out from a blunder.

The case alluded to above was that of a young woman in her first confinement. The labor was concluded in a very natural manner, and I requested the nurse to watch her and report if there was much flow. She reported none and that all was well. Suddenly the patient exclaimed that "aH was dark, that she could not see." This meant great loss of blood, and sure enough the womb was full of blood and the abdomen distended almost as much as before labor began. I lost no time in clearing the womb of clots and inducing contraction of that organ. The nurse present was a mature woman and had quite a large practice as a midwife. She tried to interrupt my efforts and insisted that "the clotters should never be removed." Probably a gallon of clots and blood were speedily removed and with hot drinks and stimulants she was restored, but she had become unconscious and had for a time paralysis of the left side and limbs. That experience caused me to lose confidence in midwives. Two women in that vicinity had previously died in that way and I have no doubt that this patient would have been added to the list in five minutes or less had there been that much time neglected.

Probably the most effectual means to prevent such a mishap as this is to secure a firm and permanent contraction of the uterus immediately after labor. For th purpose I always secure this by disten ing the thumb and fingers and placi them over the womb, hold it for five fifteen minutes before placing the ba dage in position. When thus contracte there can be no hemorrhage of cons quence.

It is important to mention that woman who has had repeated confin ments, at short intervals, is more like to have undue hemorrhage, or other mi hap, than others. If the uterus is th overworked, it (in a measure) loses i contractile power, becomes more placi and fails to undergo proper involutio hence the obstetrician should never cea to be watchful.

Again, he should be alert to keep o convulsions. A premonition of this, the last stages of the labor, is the patie has her eye attracted to an imagina point in the ceiling, with her fing pointed upwards, and a whistling sou escapes her. Keep your eye on her fa and the first sign of this command he in vigorous tones, "to stop that," and gi all her attention and strength to the wo before her. In several instances I b lieve this has prevented the onset puerperal convulsions.

Next, as to the bandage, which shou never be omitted, as it gives most nece sary support to all the internal orga and favors a correct involution of t womb. Occasionally a doctor comes o with denunciation of the bandage, b that is most emphatically wrong. T bandage serves a useful purpose in relaxed conditions of the abdomen. was said that during the late civil w soldiers with chronic diarrhea could ba dage the abdomen firmly and march day. As proof of this I will relate a ca which came under my notice about t months after I began the study of me cine. Cholera prevailed in this city a one night my preceptor asked if I wou like to see a case. I assented, and took along with him another doctor f counsel. The patient was a man of abo twenty-five years. He lay on the be rolling from side to side, groaning wi pain, and made the never-forgotten mark, "Oh! if I only had something me." The doctors had gone into an a

joining room for their counsel, and I sat beside the bed. I put my hand on his abdomen, which was so "caved in" that the vertebra could be felt. All that he took came up or went through him. It occurred to me that he could be "filled up" from the outside, and as an extra hard pillow lay upon the bed I placed this across him and pressed it down firmly. In a minute he was easier, turned over with the pillow under him and presently he was asleep. Fourteen years afterwards I moved to Detroit to practice medicine. About my first call was this man, who asked if I "remembered curing him of the cholera." The support which that outside pressure gave him was what contributed to his cure and, perhaps, saved his life, and this is what the bandage will do in many cases.

There is another matter which all should oppose strenuously. It is that of curetting the uterus in abortion, or when abortion is threatened. All violent means in such cases are unnecessary and dangerous. If but a slight hemorrhage takes place that is sufficient to destroy the life of the fetus, and then if left entirely alone Nature will throw it off in her own time with perfect safety. It will often take a few days for this, but Nature is a good doctor and he will do best who goes least counter to her ways.

Another important item, in this connection, is the manner in which babies are treated in their bathing. Scores of times, in receiving their first wash, have I seen the nurse expose the entire surface of the baby to the air. Many times have I remonstrated vigorously and explained that when a wet surface is exposed to the air, evaporation is greatly increased, and this lowers the temperature; even ice is formed artificially by rapid evaporation, as most persons know. Repeatedly have I known babies to sneeze and snuffle on their first washing from this cause. (Will some microphobist kindly inform us whence comes this "specific germ," and how he is enabled to get to work so speedily?) Only one limb at a time and a small portion of the body, when wet, should be exposed, and then well covered with flannel while other portions are undergoing the same process.

20 Wilcox Street.

[Written for the MEDICAL BRIEF.]

"Dietetics."

BY MARY H. WILLARD, M. D.,

New York City.

"Good diet with wisdom best comforteth man."

The Century dictionary informs us that "dietetics is that department of medicine which relates to the regulation of diet." Following this definition, with an extract from Herbert Spencer to the effect that "it must not be supposed the whole of dietetics lies in determining whether or not bread is more nutritive than potatoes," leads us to the conclusion that dietetics cover a far larger field in the world of science than the first definition implies.

The apostle of the "Simple Life" might have taken a step further in his explorations and entered this field of knowledge with vast profits to the people; admitting that the health and morals of the individual depend largely on the quality of the food he eats, and the kind of home he inhabits; does not the prosperity or adversity of the nation take its vice from the health and morals of the individual?

Our lives are short at the best, three score years and ten (shall we quote a well-known authority for only two score years of really capable life?). The world is teeming with glorious possibilities ready to be taken up by the man or woman possessing good mental and physical caliber, and we cannot afford to miss even one day out of our short lives by eating food which may render us unfit for the world's work; herein lies the great importance of a knowledge of dietetics in health, as well as disease.

Our ancestors—in the good old days—had to work hard, physically, for their daily food: from the turning up of the soil, to the well-spread table, all preparations were accomplished by hard labor, chiefly in the open air; hence, their appetites were healthy, therefore easily satisfied; their food simple, therefore easily digested; their digestion good, therefore many of the modern diseases were unknown and there was no need for practical dietetics, especial diet lists, etc.

To-day our living is far more artificial. Much of our food is manufactured and brought to our doors ready for the table.

Mental effort has largely taken the place of physical labor; indoor, the place of out-door life, and overwrought nerves are a force to be reckoned with in every part of our being. Diets have been formulated for all diseases; especially prepared foods are advertised everywhere, and, as in the case of all the best modern improvements are, by some, carried to the extreme, giving rise to the "diet habit."

I visited a home once where every member of the family was taking a different course of diet, and the dinner table daily took on the appearance of a restaurant, each plate surrounded by an array of especial dishes.

So much for the extreme side of the question; on the other hand, we recognize fully the inestimable value of the study of dietetics. There are few things, even in this wonderful twentieth century, so necessary to our mental and physical well being.

The fuel value of food has become an important subject, and the many experiments along these lines have demonstrated the value of the proper kind of food to suit various organisms. The terms, "vomb calorimeter," "respiration calorimeter," "oxidation of foods," "measurement of respiration," "heat of body," "application of results to prove true value of food," "effects of preservatives on health and digestion," etc., etc., *ad infinitum*, conveyed no more meaning to our forefathers than the technicalities of modern electric apparatus are familiar to the student of dietetics and domestic economy.

In a modern cook book we find six recipes for "Hygienic Griddle Cakes;" whereas the word, "hygienic," was rarely to be found in the vocabulary of our great-grandmothers.

Twenty years ago a well-known writer said that the time was ripe for a system of dietetics and domestic economy which might be applied to the family life; today, we have a well-established method of teaching this branch of science in the public schools and institutions, so that the rising generation may have no excuse for ignorance on the value of food in relation to the health and morals of the community.

Our ideas, in regard to diet in disease, have undergone even more marvelous changes in the last few years. We no longer "feed a cold and starve a fever," irrespective of the condition of the patient, but are learning the importance of sterilization of food, predigested albumin, medicated food, vegetable diet, relative values of mutton, chicken and beef, and a host of other important topics. The knowledge of dietetics is, as yet, in its infancy, and few of our home-mothers know whether a basin of broth, a glass of milk, or a mould of wine jelly contain the most nourishment for the individual case under her care.

Sir Henry Thompson, the well-known English authority on dietetics, declares that "more than half the disease, which embitters the middle and latter half of life, is due to avoidable errors in diet." One has only to visit a children's ward in any of our large hospitals to feel assured that this applies to the care of our little ones. The regular tenement-house breakfast, for the whole family—not excepting the two-year-old baby—consists of strong coffee and hot rolls.

It is impossible, in a short sketch, to do more than skim over the surface of such an extensive subject as dietetics. When it is realized that the peoples of the world are groaning under a burden of suffering, which, in the large majority of cases, may be traced to indiscretions in the form of diet; over-feeding the system with highly-seasoned viands; starving it with unnutritious food; planting in it germs of disease, which bear fruit a hundredfold; or, through ignorance, neglecting the kind of diet to create a wholesome body: we see clearly demonstrated the true importance of the science of dietetics.

[Written for the MEDICAL BRIEF.]

Static Electricity in Appendicitis.

BY O. HOUTS, M. D.,
Hiawatha, Kans.

In the past two years I have treated fourteen cases of appendicitis with the static machine; but little medicine was given. Some of the cases had run six weeks, some one-half day. Some were

hauled in from the country on cots. The mode of procedure was as follows:

First, the patient, either sitting on a chair or reclining on a cot, placed on the static platform, was given ten minutes brisk static insulation (positive), then the long-handled sponge electrode was met in warm water connected up with the negative side of machine, with a cord. The machine is started with the prime conductors closed after the machine is going at good speed; draw out the prime conductors until the limit of tolerance of the patient is reached. The positive side of machine is grounded. Continue treatment ten or fifteen minutes longer; repeat in twenty-four hours, if needed. Follow up with a saline laxative every two hours, and with injections of one part glycerine, seven of water, high up in the bowels. No relapses have followed. One case that had run seven weeks, with right leg drawn up to body; almost impossible to get him to the office. The induration as large as his head.

Treatment.—The negative electrode from galvanic battery, No. 3, was placed over appendix. Positive over lumbar region, size 6 to 8 current, gradually increased for fifteen minutes, up to thirty-five milliamperes. He was then placed on static platform and given the regular treatment with sponge electrode. He took seven treatments, when he could stand on both feet. Gave treatments every third day.

I will continue to treat all my appendicitis cases as above.

[Written for the MEDICAL BRIEF.]

A Case of True Abscess of the Ovary.

BY S. C. MISH, M. D.,
San Francisco, Cal.

Mrs. H. W. S., age twenty-four, menstruated at fifteen, and married at seventeen. Her first child was born in 1901. Breech presentation. On the twelfth day, feeling well, she went downstairs.

In March, 1903, her second child was born. On the fourth day after labor, hearing a noise in the house, she jumped out of bed and went about the halls for some time.

She returned to bed and in fifteen minutes had a very severe chill, which was soon followed by fever. A physician was sent for, and after an examination said she had taken cold, and that inflammation had set in about the womb and ovaries.

He ordered poultices on the abdomen and gave medicines internally, for the chill, fever, and pain.

This attack kept her in bed two months. In May a swelling was first noticed to the left side of the abdomen.

Since the above attack she has had chills and fever continually, there being also more or less nausea. The urine contained no casts or albumen. She was put upon a good, nutritious diet, tonics, etc.

My diagnosis was a suppurating tumor, either in the left fallopian tube, ovary, or broad ligament.

A month later I opened the abdomen and found a tumor the size of three billiard balls, extending up to the umbilicus. Following it down into the pelvis, I found that it was the left ovary, with firm adhesions to the uterus, broad ligament, small intestine and surrounding parts. The fallopian tube was drawn up over the tumor.

While gently manipulating in separating the adhesions the sac wall, being so thin in the pelvic cavity, gave way, and its contents of offensive pus poured out. The tumor was separated, a pedicle formed, a ligature applied, and the tumor removed.

The abdomen was thoroughly washed out with an abundant supply of warm water. The excess water was sponged out, leaving a moderate amount still in the cavity. Monsell's solution of iron was applied to the oozing from the separated adhesions.

A glass drainage tube was inserted, and the wound closed with Chinese-silk sutures. The right ovary, being diseased, was removed. The patient reacted well from the operation. Chloroform was the anesthetic given.

The morning of the fourth day, her temperature being 99½° F., pulse one hundred and six, respiration twenty, and no fluid being drawn from the tube, it was withdrawn. The patient made an excellent recovery.

The case is of interest in several respects.

The pathological reports show the tumor to be a true abscess of the ovary.

We are aware of there being a distinct difference between this condition and abscess of the fallopian tube and the pelvic cellular tissues in and around the broad ligaments.

The extensive use of Monsell's solution of iron to arrest the copious oozing from the separated adhesions and its success is a point of interest.

Some surgeons are opposed to washing out, and are in favor of sponging out the abdominal cavity. In abdominal operations where there is much oozing of blood, which forms into clots among the convolutions of the bowels, or along the spinal column, or under the diaphragm, or liver. or behind the stomach or spleen, or deep down in the pelvis, it is almost impossible to cleanse these cavities thoroughly by sponging. Moreover, lengthy sponging delays the operation and produces a great amount of unnecessary irritation of the abdominal and pelvic viscera, thus enhancing the danger of shock.

Some surgeons also dispute the efficacy of the drainage tube in abdominal operations. Drainage through the abdominal incision, when properly done, is not against gravity, as usually implied. I refer to those cases only where drainage is necessary, for the tube, if used, is the opening through which we can draw off the fluid as it gravitates there.

Parrott Building.

[Written for the MEDICAL BRIEF.]

Education.

BY JOHN A. WELSCH, M. D.,

Farber, Mo.

This is the war cry of the medical politician. And when you come to analyze one of them there are few men in or out of the profession who actually possess less of it than the stickler for higher requirements (?). Plain tincture of aconite has been just as effective in my practice as tinctura aconitum. And so with all remedies which I have used during my fifteen years' experience as a student and practitioner of medicine, which includes attendance and graduation at two regular medical colleges. Take, for instance, the one who manifests an aggravated form of hysteria at the mention of medical advertising, and who insists that one must possess numerous literary degrees before being permitted to enter a medical college, and he will tell you that typhoid fever, pneumonia, and almost every known disease, is self-limited, and should be treated on the expectant (?) plan. This means, write a few Latin prescriptions in which you have no confidence, and wait. While you are waiting organize a county society on the reorganized plan, and try to get a bill through the Legislature which will permit you to bleed the real physician who believes in medicine, and the English language, and which will enable you to live in luxurious idleness with your skepticism. This is modern education, according to the medico-political dictator, who at present controls and exploits the regular profession, and is trying to include the manufacturers of proprietaries in the bleeding process. It would seem he has struck more than he can handle at this game, as the proprietary interests embrace an immense capital, as well as brains, and a desire to run their own business.

Now then, brethren, if this close corporation of medico-political dictators should meet with the rebuke and defeat they deserve by this unjust attempt to appropriate private property, do not permit them to lay the whole thing on the rank and file of the profession, as they are almost sure to do, for remember they have already appropriated everything we have; our liberty, which includes our standing with the State and the public-at-large, is subject entirely to their individual whims, without recourse under the law. A dean of a certain medical college has been lamenting the fact that the increased requirements (?) may cause a deficiency in the production of physicians to the extent of making the supply not equal to the demand. He bases his opinion on the decreased number of matriculates in the medical colleges at present. But the organ of the medical trust hastens to assure him that there is no decrease in first-year students at the really high-class (?) medical colleges.

I wonder if this dean sees the point? you do not subscribe to the trust you e not high-class—in their estimation. ıt you are true to the principles on ıich this Government was founded. You e an American without notions bor- wed from effete monarchies which have kinds of tyrannical laws and more acks (?) than we have. Education is necessary element of success, and the ysician who would succeed is not going handicap himself by neglecting his n. And in America all our institutions learning should be open to everybody thout any previous political red tape extortion. If you would purify and vate the profession eliminate the medi- political dictator and give them liberty.

[Written for the MEDICAL BRIEF.]

How Medical Law is Used in Washington.

BY J. W. LOCKHART, M. D.,
St. John, Washington.

We have here in Washington the most spotic medical law that was ever con- ved within the brain of bigots or ty- ts. This law makes each separate act practice a crime, punishable with a e of not less than fifty dollars, or im- sonment of not less than three months, both fine and imprisonment. So it is y to see that the penalty for illegally cticing medicine in this State might, some cases, amount to life imprison- nt and total confiscation of property. e law has, however, one good quality. penalties are so severe, so entirely de- d of honor and justice, that there can found but few Torquemadas in the pro- sion who care to have it enforced. This , like all medical laws, is more honored the breech than by its enforcement. at these laws exist for no other pur- e than to limit competition in the prac- e of medicine, is now an undisputed t. I have never known the aid of one these laws to be invoked in any way the protection of the general public. e fact is, that the more successful is the licensed practitioner the sooner will law be enforced against him; and that, by the public, but by some disgruntled ensed doctor who is losing his practice.

Nearly three years ago I found that it would be necessary for me to give up the larger part of my practice. I had suffered severely from nervous prostration, the result of trying for more than two years to do two men's work. One day a young man of good personal appearance came to my office and explained that he was looking for a location in which to practice medicine. Said he had graduated from a medical college in San Francisco, had passed the California State board examination and practiced two years. He had not passed the examination in this State, but thought he could easily do so at the next meeting of the board. I said, "Doctor, if you will treat me and my friends on the square and prove to be the man that every physician should be, you need look no further for a location that will give you more than a good living. I will give you a hundred dollars or more of practice every month and you are welcome to all you can get beside. The offer was accepted. The doctor proved to be honorable and successful in practice. I gradually gave up most of my practice to him. He tried hard three successive times to pass the State board examination, but for some unaccountable reason, failed. Then came an evil day. He was called, over the phone, to see a patient for whom another physician had prescribed a few days before. The doctor was not informed that another physician had been called, and was, therefore, perfectly innocent of any intention of trespassing on professional preserves. However, some ugly stories got afloat about the case, and the offended doctor peremptorily notified my friend that he must immediately give up his practice or be prosecuted to the full extent of the law. I advised my friend that unless he was able to carry the case to the Supreme Court of the United States, discretion would be the better part of valor, and that he had best give up his practice until duly licensed. The doctor left here with the sympathy and best wishes of the entire community.

This case speaks for itself and needs no comment. This case shows plainly the practical working of medical laws. The general public here denounce the law and express indignation at its enforcement.

The question is, how long will the medical profession belittle itself by standing sponsor for such destruction of human right? Have individuals no right to choose their own medical advisers? I know of licensed doctors in this State who could not practice medicine if they had a car load of licenses, for the obvious reason that people will resort to patent medicine, self-prescribing, etc., or die without a doctor before they would employ some of these licensed incompetents. The Supreme Court of the United States has recently decided that the eight and ten hour labor laws of the several States is unconstitutional, because they infringe the right of individuals to contract for any number of hours they may deem proper. The right of contract is held to be a sacred, inalienable right of individuals; that State legislatures may not infringe or abridge. If the same principle of law applies to professional labor, it would seem that an individual might contract with whom he pleased to give him medical advice or assistance. I understand the court to mean that "the right to contract for anything that is right and honorable is, now and forever, beyond the scope of State police regulation." If that is correct, Liberty has won the greatest victory of the century. If not, the battle must yet be fought.

The Supreme Court has more than once decided that any law "enacted for the promotion of the public health or morals must bear a real and substantial relation thereto," or it is unconstitutional.

[Written for the MEDICAL BRIEF.]

How to Keep Bright, Clean Instruments.

BY C. D. R. KIRK, M. D.,
Shuqualak, Miss.

I perform a good many minor surgical operations and extract a great many teeth, and after having tried various methods for keeping instruments bright and clean, I have found that a good article of kerosene oil and a woolen cloth is the quickest, best way to clean instruments and keep them bright and ready. Kerosene oil will dissolve blood in a ond and remove it with only a little bing. It is superior to any chemica cleaning wood or metal. It show stain on the sponge or cloth used, t fore the chemical constituents are solved and changed. It also pre rust or tarnish, and I think it is a excellent disinfectant. Try it.

[Written for the MEDICAL BRIEF.]

Irritable Bladder in the Fema

BY W. B. WOOD, M. D.,
Los Angeles, Cal.

There are few diseases so common at the same time so stubborn and dif to treat as an irritable bladder in female. There are many causes for trouble. Some of which are malig growths, tumors, stone in the bla pregnancy, uterine displacements an flex irritation from some rectal dis If, upon close examination, none o above causes are found, its origin mu of a neurotic character. Some of symptoms are pain, a feeling of w and uneasiness in the region of the der, constant desire to urinate, vo only a few drops at a time, accompa by most excruciating burning pain straining.

Treatment.—First correct the torp of the liver by giving broken doses o omel and soda, followed in a few h by citrate of magnesia. To allay the vousness, fever, and to a certain ex the pain, give elixir acetanilid*, teas ful every two hours; also,

R.	Specific Tr. Elaterium	2 dra
	Sulph. Atropia	½ grai
	Mucil. Acacia	1 oun
	Aquæ Dest q. s.	4 oun

M. Sig.: Teaspoonful every three hours.

This dose can be increased until pupil becomes dilated and mouth then give smaller doses. Locally, us hops, or cloths wrung out of hot w and turpentine. Recumbent position perfect rest.

This is my favorite.

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* Elix. acetanilid is made by dissolving tw one-half grains of powdered acetanilid t drachm of simple elixir, with just enou alcohol to hold it in solution.

[Written for the MEDICAL BRIEF.]

Sabbatia Angularis.

BY J. A. BURNETT, M. D.,
Cecil, Ark.

All physicians who practice in malarial districts should give sabbatia angularis a trial, as it is a very useful remedy in most all forms of malaria. According to my experience here, within two miles of the Arkansas River in a malarial district, sabbatia angularis is a more reliable anti-periodic than quinine, and the most useful remedy we have in the treatment of malaria—that is, it will meet more conditions, and come nearer curing all forms of malaria without the aid of another remedy than any drug in the *materia medica*. It will prevent a chill when given in doses of ten or fifteen drops of the fluid extract every hour, for six doses, beginning so that the last dose will come one or two hours before the chill is due. At other times it should be given in half drachm doses every three hours. The anti-periodic action of sabbatia angularis is increased when combined with sweet flag—calamus—or when combined with capsicum.

When the pulse is weak, or much stimulation is needed, it should always be combined with capsicum. Sabbatia angularis will clean a coated tongue, and stimulate the liver. If the liver is very torpid, and the tongue heavily coated, it should be combined with chionanthus, which will greatly increase its usefulness in this condition.

Sabbatia angularis is not only a useful remedy in malaria, but in various other conditions. It is a valuable nervine, and will sustain the nervous system. In general debility and summer complaint of children it is often a valuable remedy to sustain the vital force, stimulate the liver, and to regulate the digestive system.

Often nux vomica will be a useful remedy to use in combination with sabbatia angularis in such conditions. Sabbatia angularis is well received by the stomach if the stomach is in condition to receive any remedy. It is a stomachic, and useful in chronic dyspepsia, when there is lack of tone in the stomach. A warm infusion will promote the menstrual flow when delayed from weakness. It is valuable in female weakness, prolapsus, etc., when combined with caulophyllum.

Sabbatia angularis deserves close study, as it has an extensive, wide range of usefulness in various diseased conditions.

[Written for the MEDICAL BRIEF.]

Peculiar Ureters.

BY BYRON ROBINSON, B. S., M. D.,
Chicago, Ill.

I. THE SWAN-SHAPED DILATATION OF THE URETER.

For years in autopsies I had noted ureters dilated in certain shapes from different causes. However, one form of ureteral dilatation arose with a certain frequency. I have termed it the swan-shaped dilatation of the ureter. It consists in the ureteral pelvis assuming a dilatation in the form of a swan, as may be observed in the accompanying figure, No. 1. The explanation of the dilatation is that in certain kidneys the neck of the ureter lies in a groove in the distal renal pole, firmly bound by connective tissue. The renal groove and firm encasing of connective tissue enables the ureteral neck to withstand more dilating force than the ureteral pelvis, which gradually becomes more and more expanded. So far I am not aware of the present explanation being elsewhere presented, and it is original with me.

In the accompanying figure of a swan's neck dilatation of the ureter, it appears that the etiology was ureteral valves (V). Perhaps the prostatic hypertrophy (L), and especially the hypertrophy of the middle lobe of the prostate (T) enhanced the ureteral dilatation. The bladder presented extensive hypertrophy and vesical calculus at V.

SWAN'S SHAPE DILATATION OF URETER.

Fig 1.—This illustration was drawn with extreme care from a specimen which I secured at an autopsy through the courtesy of Prof. W. A. Evans. 1. Calyces; 2, dilated (swan shaped) pelvis; 3, ure-

teral isthmus (proximal); 4, lumbar spindle; 5, middle isthmus; 6, dilatation of the pelvic ureter, showing three valves on each side (V); 7, distal ureteral isthmus. The specimen is accompanied by the sympathetic nervous system. S and P, abdominal brain. right side has two renal arteries and spermatic vessels. The left side has spermatic arteries, but one sperm vein. The dilated ureters are surrou by a network of nerves.

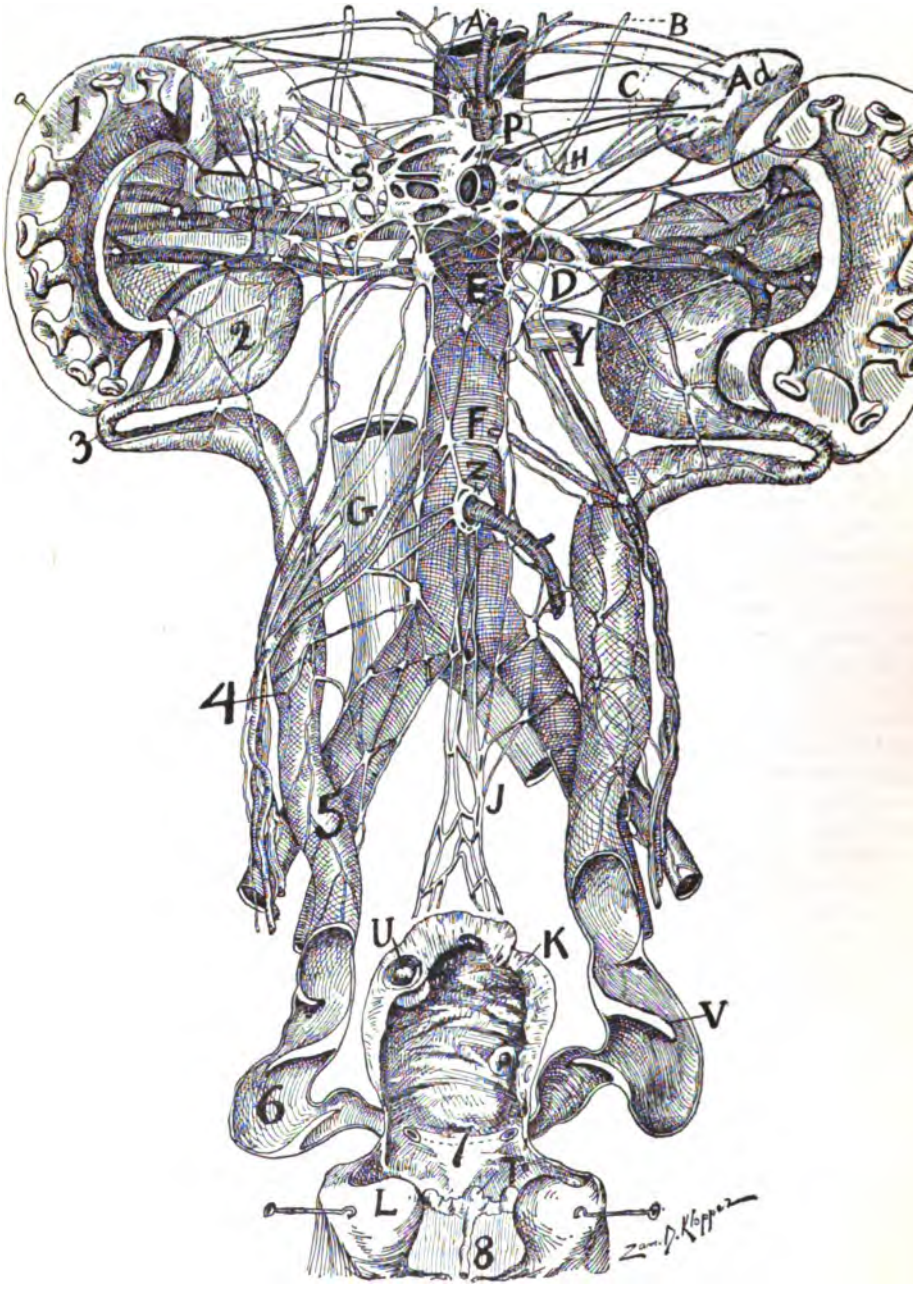


FIGURE 1.

II. CONGENITAL DISLOCATION OF RIGHT KIDNEY.

The accompanying illustration (Fig. 2) is an instructive phenomenon to the practitioner, as relates to diagnosis and surgical intervention.

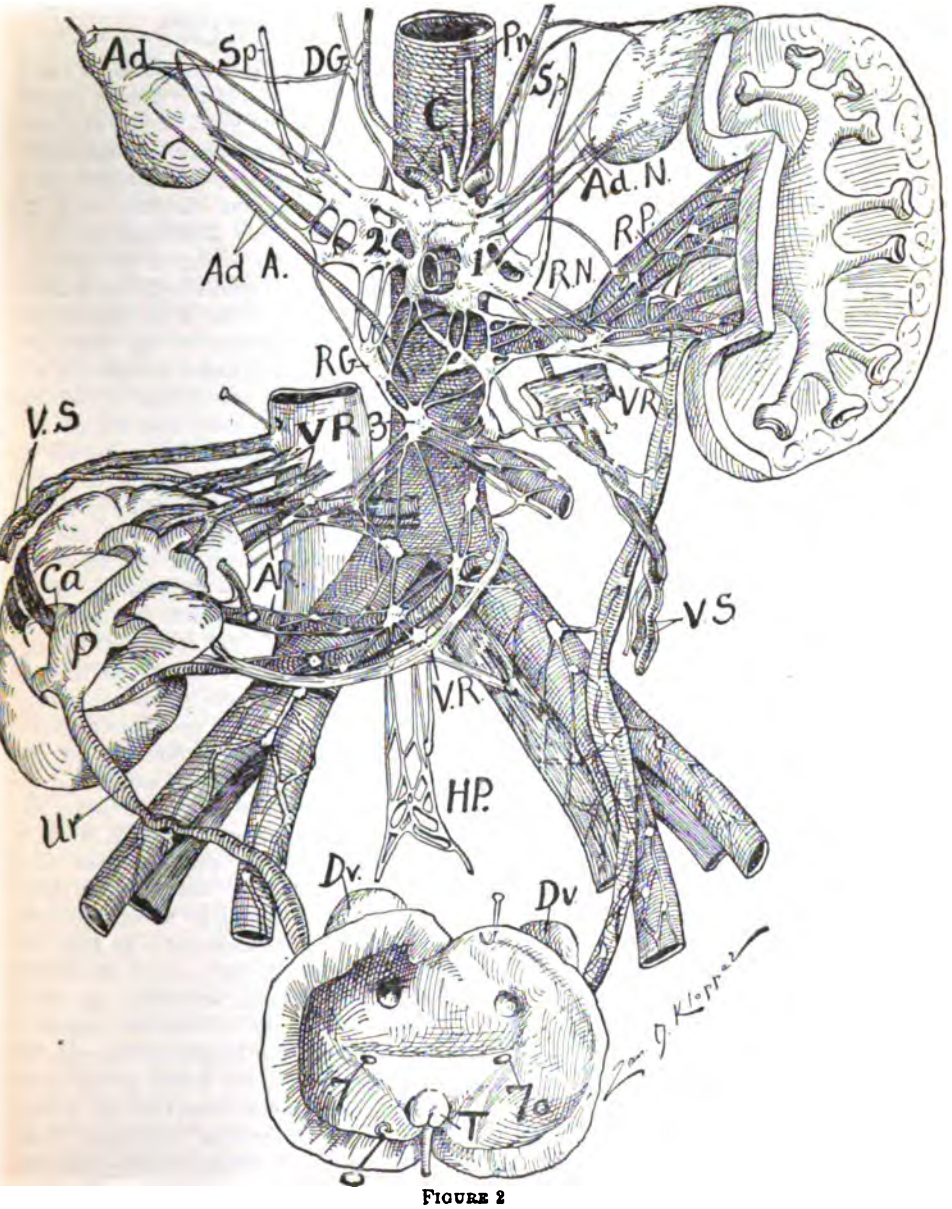


FIGURE 2

The adrenal is in its original location, and appears to have appropriated the renal artery for nourishment. However, the kidney possesses a spermatic artery and vein (V. S). This illustration makes prominent the general proposition that anomalies do not occur singly. The right kidney is nourished by one large artery from the abdominal artery (accompanied by two veins in V R), and by one large artery from the left common iliac (accompanied by a vein), the origin of which is the left side of the vena cava, and one vein originating in the left common iliac

vein (V R). The ureteral pelvis (P) is practically external to the kidney, *i. e.*, it is not in the renal sinus. The kidney (right) has no renal hilum. The left ureter is 11.5 inches in length; the right is five inches in length. This dislocated right kidney could be well palpated during life. The bladder possesses numerous diverticuli (DV) and (DV), which were one and one-half inches in depth, and would retain a tablespoonful of fluid. The bladder wall was hypertrophied, as well as the middle (only) prostatic lobe. The kidneys are drawn from exact measurements. The right was three and one-half, and left was five and one-half inches in length. The right had about one-half the amount of renal parenchyma of the left. The location and distribution of the sympathetic nerve was also abnormal, as noted in the second illustration. The rotation of the right kidney is due to the larger blood vessels supplying the dorsal lip of the renal hilum, which forced the dorsal renal lip ventralward, and finally lateralward.

CONGENITAL DISLOCATION OF THE KIDNEY.

Fig. 2 is an illustration of dislocation of the right kidney on the right common iliac artery. It had a double renal artery as well as duplicate renal veins. The adrenal is normal in location. The left kidney is normal except it is hypertrophied (compensatory). The right kidney is rotated one-quarter of a circle, presenting the calyces and pelvis ventrally. The rotation consists in the dorsal lip of the hilum passing ventralward and lateralward. This is due to the larger blood vessels supplying the dorsal renal lip. The sympathetic nervous system, especially the ganglia, are abnormal in location, dimension and number. 1 and 2, abdominal brain; AD, adrenal; DG, diaphragmatic ganglion; S P, splanchnic nerve. This rare specimen I secured at an autopsy through the courtesy of Prof. W. A. Evans.

100 State Street.

I wish the MEDICAL BRIEF all success. There are too many good things in it to be lost for the omission in sending one dollar a year.—J. C. LOVEJOY, M. D., Bachellerville, N. Y.

[Written for the MEDICAL BRIEF.]

Potential Energy, Irritability and Stimulation, the Indefatigable Factors of Life, Health, Disease and Death.

BY WM. PROTZMAN, M. D.,
Lincoln, Neb.

I do not intend this article to be a mo umental revelation of the hidden myste ies of nature, neither do I make any gre pretensions to psychology or metaphysic nor that I am possessed of a sagacious brilliant imagination, clothed with th charms of seducing language, but in unique and synthetic way I do claim th right through the columns of the BRIEF awaken the empirical drift, morpholog and miragic slumbers of our noble pr fession upon the dynamic forces and ph siological laws of nature that govern an control the human body, and if I shall successful in arousing the potential e ergy of a solitary molecule in the bra of a single reader of the BRIEF, I sha feel myself amply paid. I will ask a answer my own questions, and allow yo to be the judge. First. What is life? answer, life is an attribute of three co mon factors, viz., (1) potential energ the power of matter; (2) irritability, th distributing and motor power of energ and (3) stimulation or excitomotor pow of irritability; these factors are not co fined to the human body alone, but a found in all kinds of matter, whether an mal, vegetable, or mineral, in a latent inactive state (*nil*) and harmless whe undisturbed, but the Creator of all thing devised certain means by which these fa tors could be utilized, such as food, a water, chemicals, light, heat, electricit mental and physical exercise, and man other excitomotor stimulants, some which are constantly stimulating the fa tor of irritability, the motor power of li that liberates, converts and in disea perverts the factor and liberation of e ergy. Now then, when we take into co sideration that every action and though every movement of muscular and nerv fiber, the vibration of every atom an molecule which depends upon the liber tion of one or more of these factors, do it not make life a very interesting stud

for the erudite student of medicine? The exhaustion of potential energy in the human body is certainly very great, as every action and thought, every movement of muscular and nerve fiber depends upon the liberation of this factor; it is the mother of all other energies in the human body, its nutritive resources are derived, according to physiological chemistry, from the proteid or albuminoid food. Now then, cut off the appropriation or liberation of this factor and the human body can not survive a moment. It stands in the same relative position to other energies and functions of the human body as fuel coal stands to a steam engine; whereas, without fuel the engine is dead, unable to turn a wheel and will decay and rot, but if we use a small quantity of fuel the wheels begin to turn, when we add more fuel the wheels increase their revolutions in accordance with the amount of fuel used. So, in like manner, in the absence of liberated energy the body is not unlike the engine without fuel (dead); when there is a normal amount of energy liberated we have health, but where there is an excessive or deficient amount of energy liberated, we have excessive or diminished oxidation of tissue, and a pathogenic condition for disease.

Yet, with all this wonderful locomotive power, potential energy has no control over its own functions, is dead, cold, and lifeless; but old Dame Nature provided a means by which its functions could be utilized, and gave us the factor of irritability, clothed with the phenomenal power to liberate, control, convert and pervert potential energy into kinetic, chemical, physical, heat, and other energies of the body. We also find that the factor of irritability is not unlike the factor of potential energy, has no control over its own functions, will decay and rot, side by side with potential energy when unmolested. But Nature, again, in her wise provision, created a third, or stimulant factor, to liberate the functions of irritability. Now then, this indefatigable law of the different factors we see exemplified in the meteoric stone that is floating in space, cold and lifeless, yet full of energy and irritability in a latent state, but when the stone is attracted by the earth it falls; when it strikes the earth the concussion arouses the stimulant factor that awakens the factor of irritability that liberates a surplusage of potential energy, causing every atom and molecule to vibrate persistently, which produces kinetic energy, and the stone becomes red hot. Or a keg of powder, full of energy and irritability, will also decay and rot when undisturbed, but when we apply an electric spark we have instant explosion of protoplasm. We also see the effects of the physiological laws of nature exemplified in many different ways. We see them exemplified in procreation, or beginning of life, when the sperm of the male and the germ of the female come in contact; both full of energy and irritability, have no control over their own functions and are cast off as effete matter, unless a third or stimulant factor that is contained in the maternal circulation awakens the factor of irritability that liberates the potential factor, and that moment both life and soul of man are created. I do not believe that the soul of man is hovering in space awaiting an opportunity to vitalize a fecundated ovum. We also see these laws exemplified in the administration of remedies; the intelligent physician never prescribes stimulant remedies in fever with a temperature of 102.3° or 102.4° F., and why? I answer, the stimulant factor from some intrinsic or extrinsic cause is already unduly excited, from which there is a surplusage of energy liberated that causes excessive oxidation of tissue, on which the heat of the body depends, but when the physician finds a sub-normal temperature, with vital powers ebbing, he (the physician) at once prescribes some powerful stimulant to arouse the factor of irritability and liberation of energy to vivify the circulation by increasing the vessels of the heart, and oxidation of tissue to restore the normal heat of the body. The law of conversion and perversion of energy applies with equal force to mental emotion over organic functions of the human body; as an illustration, take a strong, muscular man with equal strong will power; yet we find in disease surrounding environments a potent factor in his death or recovery. We also read in physiology where scientists experimented

upon the minds of condemned criminals to test the power of mind and its influence on the human body, when the criminals died at the appointed time set by the scientists without any organic disease of bodily tissues. The physician sees daily examples of will power and mental emotions over the bodily functions when he visits the sick room, the patient at once reads the doctor's countenance, as well as every action and movement of his body, etc. Therefore, the physiological sunbeams of a physician's countenance and actions are veritable factors in the presence of a sick patient. They will illuminate fresh hope in a patient's mind, restore tone to his nerve centers, calm hyper-excitability, restore brightness of intellectual vigor and establish co-ordination of the circulation and functions of his body, all of which can only take place through the normal functions of stimulation, irritability and potential energy. But how often do we see these warnings violated, especially among the noted and rich men of our own country. In proof of this arraignment, when a noted or very rich man is taken sick with a temperature of 103° or 104° F., his friends become alarmed, and at once notify three or four noted physicians to hasten to the bedside of the patient, where they hold consultation after consultation, both day and night, and appoint one or two of their number as watchers to observe every symptom and change that may take place during the night, etc., regardless of the effect upon the patient's mind. Pathogenic microbes, blood, urine and organic tissue changes attract their special attention for the newspapers, and to satisfy the clamor of an excited public. During the excitement in and about the sick room, usually the patient is perfectly conscious of surrounding conditions and this, together with the presence of three or four eminent physicians, causes the patient to believe that some grave disease has attacked him, from which he can not recover, etc. When his mental emotions over-stimulate, the liberation of energy raises his temperature two or three degrees, until the factors of energy, irritability and stimulation exhaust themselves and the patient dies from physical and mental anemia; whereas, if one or two competent physicians would give apply the same remedies with words good cheer and encouragement to sti late his confidential hope, sagacity physiological laws of nature of his bo the patient would have much be chance for recovery.

Health.—In addition to what has ready been said in regard to the functi of energy, irritability and stimulat we find their attributes or accessory gans, called leucocytes and phagocy that are constantly standing guard to tect the human body in every resp against poisons, contagious and infecti germs, especially exemplified in imm persons.

Disease.—I do not wish to be un stood by the readers of the Br that disease, whether mental or p sical, is entirely due to the perver of the afore-named physiological fac of the human body, as I am well aw that a want, or perversion, of the elen tary principles of tissue, viz., iron, po sium, magnesium, phosphorus, lime sodium, are not only contributing, primary causes of disease. Sometir also, pathogenic microbes, chemical other poisons will produce disease. H I answer, by causing molecular char that stimulate the irritable and poten factors that increase the circulation oxidation of tissue, with increased l and general heat of the body. Now t while the physiological factors of the man body are not directly responsible every disease, yet without their operation disease could not exist.

Death.—Death, we are told by physi gists, is the last effort of muscle plas and the formation of sarcolactic acid. addition, I will add, a cessation of at ico-molecular changes and prolifera of cell growth and development, cau from want or appropriation of the mentary constituents of tissue that controlled by the three principal fac of the human body, viz., stimulation, tability, and potential energy.

And now, in concluding these uni synthetic and, perhaps, miragic or l brative thoughts, etc., allow me to that, while I have no implacable des or malevolent feelings against any the or school of scientific medicine, I ask

eaders of the BRIEF, with its forty-odd housand subscribers of educated men, re we not daily prescribing remedies mpirically, instead of physiologically? o we not prescribe remedies because our xperience and our books have taught s to prescribe them without a moment's hought or reflection how those remedies ntagonize pathological tissue changes, r how they affect the physiological laws f the human body?

[Written for the MEDICAL BRIEF.]

A Queer Case.

BY JOHN C. WEAVER, M. D.,
Apopka, Florida.

On April 23, 1905, I was hastily summoned to Mrs. H., aged twenty-eight, white, multipara; approaching her bedside, found that she was having convulsions, and had had, up to the time of my visit, five very hard ones, coming on at short intervals. Being alarmed at the situation, I resorted to venesection, taking about a half-pint of blood from the left arm. I also used chloroform inhalations during paroxysm, and afterwards veratrum viride hypodermically. This treatment seemed to control the spasm, as there was no return.

I found this woman seven and one-half months advanced in pregnancy, with general anasarca, and most of the secretory organs inactive. I got the bowels and kidneys acting freely, and the swelling was soon reduced. For two or three days following the convulsions she was, to a great extent, unconscious, not knowing even her husband or children. When consciousness was restored, she complained of being blind, and could not believe that she had been sick. Everything appeared to her as a dream.

During all this time she suffered no abdominal pain, and no uterine contraction took place.

Up to the time of the convulsions she felt the motion of the child, but since then there had not been the least movement. Within a week from the date of the convulsions, she was up and about her usual vocation, seeming well and hearty, with a good appetite, and not the least swelling about the body.

On June 10th, six weeks later, I was again summoned, as she had now reached the full term. I found her in labor with a breech presentation. The delivery was quick, but, of course, the child was dead. In previous pregnancies the placenta had always been retained, and she suffered from great loss of blood.

On this occasion she and her husband were both delighted that the placenta had come away entire, and not the least loss of blood. I will state also that she had no afterpains, and her breasts gave her not the least trouble.

Query.—1. Were those convulsions uremic?

2. Could the child have remained in the uterus six weeks dead without having undergone decomposition, or having set up uterine contraction?

3. Is it not possible that the child could have received through the placental or umbilical cord enough sustenance to keep it viable, and yet not enough to give it strength for movement?

4. Was I justifiable in my course of action as regards this particular case, or should I have brought on premature labor, as many would have done?

5. Would not the forcing of labor have been more detrimental to my patient than the leaving of it to Nature?

I trust the BRIEF readers will throw some light on these questions, as they are really interesting and important.

[Written for the MEDICAL BRIEF.]

A Few Jottings from Arkansas.

BY W. S. ROBINSON, M. D.,
Nashville, Ark.

First, in all cases of sickness the physician must be master of the situation, and should be well-grounded in physical diagnosis. From day to day he should have in his mind's eye a clinical picture of diseased conditions, and remember that the supreme element in all diseases is rest. Especially in typhoid fever, complete rest in bed is imperative from the first day that the disease is suspected. The bowels should always receive prompt and careful attention from first to last, keeping them aseptic, if possible. A few

small doses of calomel given early and sometimes later in the course of the disease, I believe are helpful. Active elimination through the kidneys is always necessary. A generous supply of pure water usually attends to that point. As to the different plans suggested in the treatment of typhoid fever, they are as many as there are "boodlers" in hades, and every fellow reports success. I am in favor of a great deal of common sense and very little medicine in this disease. In the matter of nourishment, a moderate amount of liquid diet is allowed, buttermilk being my favorite food. A good nurse and no visitors are always desired.

In penumonia, watch the heart carefully, as it is the index to prognosis and treatment, the main point of the latter being to judiciously sustain the heart and treat other factors symptomatically. All cases should not be treated alike. "Individualize your patients, gentlemen."

In malarial hematuria, I believe that quinine is indicated, as in all other malarial diseases, but it should be given intelligently. I often find articles written on the treatment of malarial hematuria wherein the writer is a great advocate of quinine in this disease, but whose views do not conform altogether with mine in its use. I never give quinine until elimination is well under way.

As a vaso-motor stimulant in surgical shock, atrophine is the first thing to use.

The less the doctor knows of aseptic rules in obstetrics, the more cases of puerperal fever he will have. The most common infection is saphrophytic, or the germs of decomposition. As a general thing the patient seems to do well for forty-eight hours after labor, then becomes somewhat restless, with slight elevation of temperature. In a few hours it runs up to 104° or 105° F., with swelling and tenderness of the abdomen. Under gross carelessness, as a general thing, you have let your patient get into this condition. Now what are you going to do? As for my part I would treat her the same as I would infection of a wound from any other cause. Clean out the vagina and uterus thoroughly, with dull curette, and thoroughly irrigate with a hot solution of permanganate of potash, hot as tissues will bear; give chlorate potash internally, and apply turpentine stupes over bowels.

In these so-called "congestive chills give calomel in small doses, to elimi waste matter, and to prevent a subseq chill after elimination is sufficiently vanced, as shown by the tongue, skin mental condition, begin with quinin solution, with diluted hydrochloric If you will keep your patient under influence of hypodermics of atropine the first forty-eight hours, until you get in your quinine, he will not ha second chill.

Atropine will stop a chill and is on our best hemostatics.

"Bed wetting," the diagnosis of in tinence of urine, is not a difficult ma but to determine the precise cause of incontinence is often far from easy. the treatment by far the most succes drug I can use is belladonna. A dos five to ten drops of the tincture may given to a child three times a day. remarkable how resistant children to the action of belladonna. In dribb of urine, in the aged, as well as in tinence in children, I have found following prescription to be excellent

℞ Thuja Oc. Fld..... 1½ drac
Tinct. Belladonna .....30 drop
Aquæ.....q. s. ..... 4 ounc
M. Sig.: Teaspoonful three or four times a

Pain extending over the entire abd inal region and tympanites is very c acteristic of peritonitis. Now, as reg treatment: As a local application I rec mend turpentine stupes. As an inte remedy I prescribe some good prepara of opium.

I am opposed to treating cancer by knife, when seventy or eighty per die. Here is a remedy I have been u in my practice when a case presented self for treatment, and I do not rem ber of a single instance where it faile cure. It is this: Take galangal root, g to fine powder—sufficient to make sev plasters—then take zinc chloride, ad little water, and allow the zinc to bec thin by heating in warm water; then the zinc chloride to the pulverized ga gal root; make plaster and apply to cancer. Renew every day for three four days, until the cancer begins to br loose all around, then discontinue plaster of the galangal and apply

good salve until healed up, which will be in the course of ten or fifteen days. I have cured somewhere near fifty cases with this treatment. There is no danger in it.

Drug Habit.—I am permanently (satisfactorily) curing all that come (and there are many) with the hyoscine treatment. I have them ready to return home inside of eight days. I have them often that take one hundred grains of morphine per day.

[Written for the MEDICAL BRIEF.]

The Sex Question.

BY SILAS HUBBARD, M. D.,
East Aurora, N. Y.

I see by recent numbers of the BRIEF that G. W. Bowen, M. D., and T. E. Reed, M. D., are each respectively advocating new theories of the sex question. Their views join, and I will endeavor to make their theories join and will endeavor to show how they may both be right to a limited degree, although neither of them know how or why they are so. To help them out better, I will say that in 1850 and '51 and '55, I published for the first time, in the *Buffalo Medical Journal*, that ova of the human subject, if impregnated while recent or immature, developed into males, and if impregnated while mature or old developed into females.

Dr. Bowen says children begotten in the fore part of the night, till midnight, are females, and those towards morning are males. There is a shade of truth in this, because the weakly and cross women will generally submit to intercourse only in the fore part of the night before sleep has overtaken them, and that class of women are they who have the most girls. They do not allow their ova to become impregnated till they have come down into the uteri and have become mature or old, while the healthy, vigorous women, if they do not initiate proceedings, at least will not object to being awakened in the morning, and thus with them a fresh or immature ovum is more likely to be impregnated, consequently such women are more likely to produce a majority of males. They give more than two chances for the impregnation of a fresh or immature ovum to the weakly woman's one. I will here say that the very great majority of the human race are begotten during these two periods, viz., the fore part of night and the morning.

Now, as regards Dr. Reed's theory about males being begotten during the flow of the tide, and girls during the ebb of the tide, I will say that the perfection of the flow of the tide is in the daytime under the attraction of the sun. I will say that in general only vigorous, healthy women will initiate or submit willingly to intercourse during the day or under the influence of the sun and consequently they give more than twice as many chances for immature ova to be impregnated, consequently they produce more males. The vast majority of mankind are born without any design or intention of the parents what the sex shall be.

The strong, active women abort more of the impregnated ova which would have developed into females, because the ova are low down in the uterus, and her wide-awake activity causes the abortion, while they retain the fresh or new ova which were impregnated in the tubes, and had acquired attaching powers by the time they entered the uterus, while the weakly women, in consequence of their sedentary, slow habits, are more likely to retain old ova, which have been impregnated while in the uterus, consequently they produce more females than males. I will here remark that very many more girls in general are aborted than boys, which I will not now explain.

The weakly, or cross women, lack encouraging psychological and physical effects to the male, and thus they do not give one-half the chance of new ova being impregnated, consequently they produce a majority of females, while the healthy, active, amiable women have an encouraging psychological and physical effect on the males. Consequently more new ova are impregnated, consequently they have more births of males.

There is not in general very much anxiety through the United States and France to know how to beget boys or girls at will. There is in general much more anxiety to know how not to beget either.

I will repeat my former sayings that boys are generally begotten shortly before menstruation, and girls shortly after menstruation. That the ova shortly before menstruation are fresh or new, and shortly after menstruation they are mature or old.

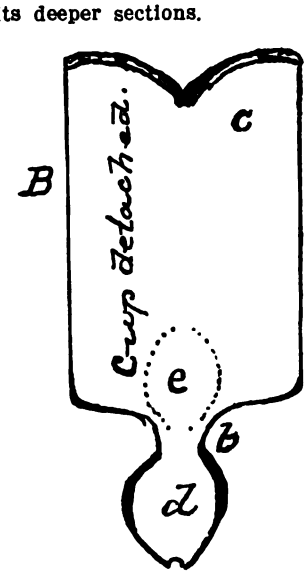
[Written for the MEDICAL BRIEF.]

An Improved Syringe and Urethral Irrigating Nozzle.

BY FERDINAND KING, M. D.,
New York City.

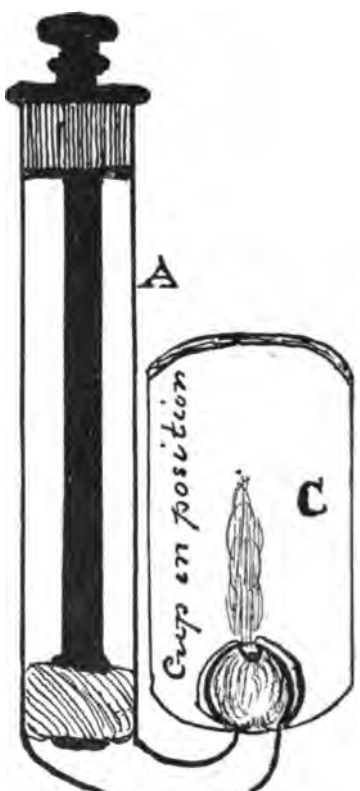
A careful study of about one hundred cases of gonorrhea treated by the irrigation method during the past year, has convinced me that the gonococcus, if left alone, will not invade the urethra to a greater depth than its first bend, which may be said to be at a point corresponding to the peno-scrotal notch, or between the cruræ, when the penis is at rest.

It therefore occurred to me that this organ should not be lifted upward (and thus straightened) during the process of injecting or irrigating the urethral canal, if we would avoid forcing the gonococci into its deeper sections.



To inject or irrigate the urethral canal in accordance with this idea, I devised the syringe and cup here shown and described.

The syringe, as to barrel and pistol plunger, is similar to those already use, but its distal or pointed end is like a shepherd's crook, and looks up



when held in a line with the opera body and with the plunger pointed d wards.

The barrel of the syringe may be m of hard rubber or glass. The soft ru cup (C and B) is slipped over the n of the syringe by self-invagination, by pushing its point (a-B) upw through its own neck (b-B) into space within the cup (e-B). The tip therefore, supplies a rubber cover fo nozzle of the syringe or irrigator (e-

The cup, which is made in three s fits snugly over the glans penis, and penses with the necessity of the pati fingers coming in contact with the o thereby removing a fruitful source o fection.

In like manner the cup may be fitt the nozzle of the ordinary wall irrig

501 West One Hundred and Twenty-third S

[Written for the MEDICAL BRIEF.]

Enteric Fever Jugulated.

BY JOHN T. DE MUND, M. D.,
Ridgewood, N. J.

Cui Bono.—Progressive therapeutics always enlivens the interest to make pathology subservient to physiology.

In the treatment of fever, be ever careful not to harm the delicate mechanism of the human system. The solution of the electric enigma has been solved, making it an epoch in the wholesome advancement in medicine.

Medicine the writer looks upon as nothing more and nothing less than "chaos confounded."

In the healing art, the *pros et cons* enameling the *Pev Sceintiæ et Aete* of the present day are as the quicksands of tentative tautology, which so often beggars description. The inexactness of medicine as a science is irrefutable.

When we think, but for the life of us we do not know, Common Sense politely invites us to go way back and sit down; for as there is life in medicine, there is also death in disease.

The simplicity of the best treatment, with its flush of success, far outweighs the complicity of incomprehensible custom and usage. Custom so often so metaphrastic, usage so repeatedly paraphrastic, that the pessimistic optimists—the survival of the fittest—is like sounding brass and a tinkling cymbal.

Cold and caloric, fruitful factors, though one the antithesis of the other. Note the shiver of the physiologist, and the blush of the pathologist; also, the nidus and the germ, pet prerogatives of assailments. It seems a hard matter to get the physiologist to admit that cold contracts in *statu quo*, while heat expands and eliminates—this we know. The practical part of theory is almost always at swords' points.

The radical or enforced reductions of temperature by the cooling process, centefebric, wholly by the use of selected drugs, thus signaling the downward drop in the scale of caloric—making a "minimum of the fever curse"—to its normal condition in the human system is as attractive as it is instructive.

Fever, so-called pyrexia, is nothing more or nothing less than a morbid increase of vitalized caloric. It may be termed an acute affection of the system, characterized by increased heat of skin, increased frequency of pulse, with a general derangement of the whole system.

Defervescence, lysis, recrudescence crises, if not nipped in the bud must undergo the procrastinating process toward recovery. From all of which the good Lord deliver us. These are facts.

The late Professor George B. Wood, of Philadelphia, the author of "Enteric Fever," with his lucid interpretation of enteric fever, proved himself to be a true clinician, the enteritician of his day. Wood with his terebinthinate treatment in this fever, could well afford to say, "What do I teach?" I am not aware the cold tea preparations were in vogue in his day. Turpentine and acetanilid, in combination, when called for, give the eureka of satisfaction.

On the other hand, the late Professor Louis, of France, Woods' contemporary, with his hybrid typhoid, evidently a devotee of typhoidal illusion, gave to the profession the "Signal Points," "The Right and the Wrong." The acuteness of the former and the sub-acuteness of the latter, speak for itself. It is hardly necessary to dispute the neologico-nosological part of this matter-of-fact statement.

If you ask a person for a crowbar and the individual hands you a monkey-wrench, would it enable you to make the crowbar of disease the monkey-wrench of health? Absurd, indeed! A step farther, "Trying to Teach Ducks to Swim," "The Tall Treatment," well meant, but by no means backed by physiology, is superlatively preposterous!

Take him up tenderly, lift him with care;
Purgatorial Probation—he is getting it, for fair.

Call you this scientific? Yes, "*sigh*-entific!"

The hybrid treatment for a hybrid disease; its analogue is, "onology." It is but human to fight the disease, as it is inhuman to fight or toy with the victim of circumstances.

Enteric fever is a fever *sui generis, per se*, its "countersign," the abdomen. Prodrome—week or two, more or less. Habitude, cephalalgic epistaxis, rose-colored

spots, "little jokes," meteorism, portal derangement (for as is the portal circulation so is the individual), "and all the doctors in the land" will find it so.

On applying both hands over the abdomen one can almost cover the nidus of this fever. The catarrhal complications and the enteric erosions of enteric fever are best combated by pillowing the patient's head, strictly enforcing the horizontal position, thus as it were "splinting" the bowels, thereby getting an early metabolism, instead of the tedious meteoric perverted cell action so characteristic of this fever.

Glands of Lieberkühn and of Brunners, solitary glands, agminated glands, or Peyer's patches. Herein lies the infected nidus, and the sparks that kindleth.

If retrograde advancement is anywhere to be found it is in the healing art. It droppeth as a thunderclap from a cloudless sky. The wherefore and the why is history.

To jugulate, nip in the bud, or abort, is all very nice in print, but it takes a very nice and level-headed clinician to accomplish the wished-for result. Close observation, years of experience, and a natural predilection has much, every way, to make the effort a success.

In medicine we are all prone to vex the question. Be fair; let us agree to differ, for by so doing the patient may get the benefit.

The epitome of nutshell conciseness, in my humble opinion, far outweigh the plagiaristic platitudes of Greek and Latin nomenclature so frequently and so fearfully distorted that there is often no sane resemblance to the mooted object in view.

Is it not unfair for our children to be allowed or encouraged to follow in the wake of our inexcusable ignorance or plausible perverseness?

The jugulating treatment which has given the most satisfactory results, is as follows: Put your patient in bed, and keep the patient in bed until the patient obtains the consent of the physician to leave it—out of all danger. A good and safe plan. To unload the *primæ via*, a fair dose of calomel, followed in two hours with a seidlitz powder. To increase peristalsis, soapsuds enemata as occasion requires. Note the temperature carefu yourself; visit your patient four time day for the first three days. If there no rise in temperature, so far so go *cæteris paribus*, you may look for early defervescence. This will test ability of the medical attendant. Spo ing with warm water or alcohol is tional, flannels steeped in warm camph ated oil and applied over the abdon have a two-fold effect. As a rule, patie should have a good supply of pure wa Small pieces of cracked ice in the mo is a harmless luxury. Lithia, about tw ty-four grains in twenty-four hours, w diluted, flushing the kidneys, as it w imperatively. The diet should be sim nutritious and of easy assimilation. uid diet for six weeks is the safest. M and liquid peptonoids, as a rule, chime beautifully. Be ever mindful of the valescent stage.

The two following formulæ merit sideration:

℞ Acetanilid.....1 scrup
Spts. Terebinthinæ.....2 drach
Tinct. Opii.....2 drach
Tinct. Acoine.....½ drach
Syr. Acaciæ.....3 drach
Aquæ Dest.....q. s.....4 ounc

M. Shake well. Sig.: Teaspoonful every t or four hours, day and night.

℞ Acetanilid.....1 scrup
Quin. Sulph.....1 drach
Spts. Nitre Dulcis.....1 ounc
Tinct. Acoine.....½ drac
Aquæ Dest.....q. s.....4 ounc

M. Shake well. Sig.: Teaspoonful or two required, every four to eight hours.

Each dose goes to the spot, as your tient will often tell you.

P. S.—An eye to the splenetic compl tions.

Once more, pin-head doses of calome the tongue, to tone down the derangen of the portal circulation. This should be neglected.

I have learned a little by experie and have made as big mistakes as man living—it seems a part of the fession. In some cases, the medical tendant may be inclined to doubt the rectness of the diagnosis. The drop in temperature and the continued drop i interesting as it is instructive. The j lating part is doing its work. For m years I entertained a very different of this matter. But none so blind as t that will not see.

If under the canopy of heaven ther a line of treatment with its quick

satisfactory results superior—as given in the weak outline of this paper—why delay the opportune moment for its publication?

Citation of three cases, to avoid the prolixity of unnecessary repetition: Young man of plebeian poverty, not even a bed, only an apology of a lounge; no change of raiment; no nurse, only a woman in the hovel to hand him his scant diet. Recovery very satisfactory. I made twelve visits.

The other two cases in comfortable compartments, both large men, one an M. D. graduate of Cornell; the other a layman. Enteric fever stamped each victim with all its iridescence. The M. D. had been complaining for two weeks. After taking to his bed his fever left him on the "fifth day." The layman on the ninth day. Loss of flesh and emaciation, whether due to the nip in the bad treatment, or the result of the disease vexes the question. Their recoveries O. K. A gain of about thirty per cent. Now for the incredulity of opposing ostracism:

ENTERIC VERSUS TYPHOID.

Enteric is generic, how much in a name!
Typhoid from τμφὸς—stupor, hard to explain,
Let the mistake be corrected,
Let the right be interpreted,
The public will thank you,
Your conscience will bless you,
One among many or none.
Let the scholars "en classe"
Go for their instructors "en masse"
As a beau and his lassies,
May the quarrels prove fun,
Let your children be taught
O'er the length of the land,
What is classical is classical,
Onology—so Jackassical.

Typhoid is One.

[Written for the MEDICAL BRIEF.]

Hydrophobia Versus Madstone.

BY WM. H. TATE, M. D.,
Tackett's Mill, Va.

Since we are just passing through an excitement of hydrophobia among dogs, with a possibility of witnessing, perhaps, a case or two in the human family, consequently, I am inclined to write a short article on that disease, with a few comments on the madstone.

That hydrophobia is a disease caused by inoculation with the saliva of a rabid animal, and characterized by intermitting spasms of the muscles of respiration, together with a peculiar irritability of the body and disturbance of mind, is an indisputable fact, and as prevention is better than cure, it is very necessary that every physician should know the symptoms in the dog, and most especially the earliest symptoms. First we have unusual sullenness, fidgeting and shifting of posture. Sometimes the animal will retreat to his bed, where he will lie curled up with his face between his paws.

Then he becomes fidgety, continually changing his resting place; he appears clouded and suspicious in his countenance, and gazes strangely about him as he lies on his bed. A peculiar delirium is also an early symptom: The dog sometimes springing up and giving an angry bark at some imaginary object, but if his master speaks to him, every fancied object will disappear, and he will crawl toward him with his usual expression of attachment. Sometimes it seems as if his feet would give way and he would fall, when suddenly he springs up again, every object of terror seeming to surround him; gazing wildly around, he snaps and barks and rushes again to the end of his chain to meet his imaginary foe.

The amount of ferocity displayed by rabid dogs varies considerably. Some there are whose fury knows no bounds, and, if loose, rush about biting every man or beast in their way. Others, on the contrary, can not be made to bite, but in the earliest of the disease show an increased fondness for their master; hence some persons have been poisoned simply by having the dog to lick the hand, if perchance there is an abrasion about the parts.

Change of voice in the dog is an early symptom, such as a hoarse inward bark with a slight elevation of tone, and another most peculiar characteristic combination of a perfect bark, ending in an abrupt and singular howl.

According to the best authorities, there is no known specific for this disease. As soon as possible after the bite the wound should be sucked, and at the earliest possible convenience the whole wound should be excised, or cauterized, or both.

In stating that there is no specific for hydrophobia known to the medical pro-

fession, I would like to add that there is a traditional remedy which among the populace is regarded as not only specific, but infallible; that is the wonderful madstone, of which I suppose every boy and girl on the American continent have heard.

I have known several who, after having been bitten, have visited the madstone, and had it applied to wounds inflicted by dogs, and who claim to have been benefited by the application, but I have never seen or heard anything about it that had any tendency to increase my faith in any such superstition.

About three weeks ago my hired hand was bitten by my dog on attempting to chain him, and about two or three days after he received the wound he was influenced by his friends to visit the madstone, after I had cauterized the wound, and, as usual, he claimed to have derived all the benefit from the wonderful madstone.

Always having my conscience susceptible to conviction, though as yet not having been converted to the madstone theory, I would like to call the attention of the BRIEF readers, and the profession generally, to search for all the facts that may throw some light upon the efficacy of the venerable madstone, if there is any known, and by so doing might convert some one, and save a soul from death.

[Written for the MEDICAL BRIEF.]

Abnormal Eyesight—Responsibility for Its Correction.

BY WILMOT P. BRUSH, OPH. D.,

Fredonia, Pa.

Being a regular reader of the MEDICAL BRIEF with other periodicals pertaining to ophthalmology, and especially the branch known as optometry, the position of the glasses as shown in the frontispiece in the July issue of the BRIEF, Doctors Carmalt and Waldo, is, I think, of sufficient importance for some practical observations on eyesight work. All modern optometrists recognize the necessity of properly placing the lenses before the eye that comfortable, or easy vision, may be secured. The visual axes of the two eyes, the optical center of the lenses, and t angle at which the lens sets before t eye should be considered carefully, a if possible, adapted to the needs of t user. The optical center, when t glasses are used exclusively for eitl distance or near work, can be quite eas set, so as to avoid prismatic effects, b when the single lens is used for both d and near work, if set for distant objec and then the eyes directed to an obj at the usual working distance, say fo teen inches, the eyes turn down and the visual axis, instead of passing throu the optical center of the lens passes from the center horizontally,and do from the center vertically. If the le used is a plus or converging one, it thickest in the center, hence when t visual axis is turned in from the cen it is affected as though passing throu a prism base out, and if it passes do from the center it results in a prisma effect base up. In case that the lens us is a minus or diverging one, then t prismatic conditions are reversed, becau this form of a lens is thinnest in t middle or center. A prism bends or fracts rays towards its base, which in t case horizontally deflects the rays th enters the eye from the object to te poral or outer side of the macula, there compelling the brain to turn the eyeb outwards in order to bring the mac within the area of the displaced focus avoid double vision or diplopia. In c that the lenses are set so as to center near vision, and the eyes directed to so distant object, it results in the opti centers of the lenses being within t inter-pupiliary distance, too close, wh results in the rays from the object look at passing through prisms base in, a deflecting the rays from the obj towards the nasal side of the fundus, macula, thereby compelling the brain turn the eyeball inwards in order that t focused rays from the object may fall the macula and distinct and easy visi be secured, though at the expense of extra amount of nerve force to the ex ocular muscles concerned, and some d association of accommodation and conv gence. It is true, however, that where lens is properly set for either near distance vision the eye is directed

liquely, producing prismatic effects, but it returns and looks through the optical center of the lens, thus relieving the brain in its extra supply of nerve force used in overcoming the prismatic effects. Then, in case that one pair of lenses are to be used for both far and near, we divide the distance of the pupils apart when in the near vision, and the distant positions, using a focal point distant about twenty-four inches from the eyes of the patient. Now, the point that I wish to make, if point it is, is that however exact the refraction found and the lenses conform thereto, in order to have easy and comfortable vision the lenses should be properly set before the eyes.

The position of the eye-glasses shown in the photographic picture of Dr. Carmalt, shows him to be engaged in reading or near work, and undoubtedly looking more than half way between the optical center of the lens and its lower peripheral border, resulting in the effect of a prism base, up or down, as the case may be. In either case an undue effort of muscular action, or nerve impulse, is required. Thus far we have only referred to or supposed to be using spherical lenses, but when compound lenses are to be used the question becomes more complicated and requires even more care in the proper setting and the results to be attained. If strong and vigorous, which the Doctor looks to be, but little or no nervous trouble may be aroused, but in the case of one more susceptible or less vigorous, every modern optometrist knows the inevitable and sure result. On turning over a page in the BRIEF we note the position of the lenses before the eyes of Doctor Waldo. The right eye is looking about two-fifths of the distance outward from the optical center of the lens, whilst the left lens seems to droop downward, causing the visual axis of the left eye to be about two-fifths of the distance upwards from the optical center of the lens. The lenses may be, it is true, simple sphericals and of low power, and the wearer physically able, which he looks to be, to overcome the displacement of the focus of the two eyes without noticeable muscular trouble, or resultant eye-strain. On the other hand, the condition of the eyes may have been that they required the apparent decentration of the optical centers of these lenses, but every up-to-date eye man at once recognizes that if that were the case that such decentration could and should have been made before the lens was cut and edge ground, if for no other reason than that of having the frame set right for a better appearance. The main point that I desire to make is that the wearer of a correction should always be instructed how his glasses are intended to be adjusted, and it seems to me that all those engaged in the fitting of glasses should take pride in knowing not only how to refract, to diagnose disease, gain a thorough knowledge of the anatomy, and reflex nervous troubles, but be competent to measure for a frame, and see that it properly sets the lenses before the eye of the wearer. If the reader will but take the time and note the number of misfit frames that he may chance to see in a single day, he will, doubtless, if he have an ambition to do unto his fellow as he would be done by, resolve to become proficient in correctly fitting his patients with a frame affording the best possible vision within the purview of modern optometry. One has but to note the rapid advance made within the past few years in the art of correcting abnormal vision with lenses, and no single observation contributes more towards the conformation of this fact than does a perusal of the questions used by the California State Board at its last meeting, held in May, where but seven of the seventeen candidates successfully passed the examination.

[Written for the MEDICAL BRIEF.]

Blood Conditions in Rheumatism.

BY IRA B. BARTLE, M. D.,
Carmen, Okla.

There is a wide difference of opinion in regard to the exact blood condition encountered in rheumatism. In fact, almost as many different opinions as there are different observers. As to what condition these blood changes can be ascribed, is still a matter of doubt, as many of the blood conditions noted in both acute and chronic rheumatism, are nearly identical to those encountered in other acute and

chronic conditions; consequently, to base the diagnosis upon blood conditions alone, would be impossible. However, a close study of the blood in several cases of both acute and chronic articular rheumatism, convinces me that the causative factor of these diseases may be traced to conditions existing in the blood itself, and not, primarily, to deposits in the affected joints or muscles.

The average condition found in my blood observations were alkalinity, always present, gradually diminishing as the disease progresses, until, in a few instances, almost a neutral reaction was obtained. Increased fibrine, the time limit of coagulation is about normal. A diminution of erythrocytes, especially in the chronic cases; this diminution may amount even to a mild enema. Almost invariably there is an increase of leucocytes, especially in the earlier stages of the disease. The hemoglobin estimate is slightly higher than would be expected from the red blood count. Consequently, there is a disproportion between the hemoglobin estimate and the red cell count. The average count is four million two hundred thousand erythrocytes, with a maximum of four million five hundred and eighty thousand, and a minimum of two million eight hundred thousand.

The average hemoglobin per cent is sixty-five, with a maximum of eighty-four and a minimum of fifty-six. Some writers record much lower per cents and red cell counts, but these are the average in my experience, and it includes some very severe and protracted cases. Rheumatism, as a rule, attacks the full-blooded, gouty patient; consequently, prior to the attack, the blood count would naturally be at its maximum limit, and without having had opportunity to make a count prior to the attack, it would be impossible to know the exact amount of cellular destruction. There is a tendency, always, in these cases, to resume their original high-blood standard very shortly after recovery.

The theory of crystal infiltration or deposits in the myolema or muscular inter-spaces or the joints, is, I think, to be discredited, only as the secondary condition and not as a primary factor. Neither do I think rheumatism due to any specific, single micro-organism or plasmo
When the blood seems to be in a cer
condition, there is a predisposition tow
these crystalline deposits, and any distu
ance of the normal equilibrium may
cipitate an attack of rheumatism. I beli
that there are several micro-organis
which can bring about these blood co
tions favorable to crystalline depos
namely: Kleb's-Loeffler bacillus, strep
coccic, gonococcic, staphylococcic (t
limited extent), pneumococcic, bacil
associatus, influenza bacillus, etc.

The analogy between the disease cau
by this micro-organism and a post-rh
matic affliction, has been observed fo
great number of years. We expect rh
matism to follow diphtheria, and are
surprised to find it after scarlatina,
it has been observed that followin
grippal epidemic, we will have an unus
high number of cases of rheumatism.
observation in 1901, was that about tw
per cent of the cases of la grippe w
followed within two months with a n
attack of rheumatism. The epidemic
1903 showed a still larger percent
while the recent epidemic of 1905
not, up-to-date, shown so marked a t
ency toward this rheumatic condit
However, the blood picture in the att
of la grippe this year has been diffe
to that in the years before mentioned,
impoverishment being much more
found than heretofore, and our la gri
cases were of a much more acute type

It is my belief that, in the dis
caused by these germs there is an a
toxine elaborated, which is curative to
acute infection, although it brings ab
blood conditions which favor rheumati
I am strengthened in this belief on
count of my experience in the admi
trating of the various anti-toxines. In
use of anti-streptococcic serum in mi
tubercular conditions, I have always
attacks of acute articular rheumatism
lowing in from nine to twenty days f
the beginning of the administration of
serum, and the severity of the attack
not seem to be affected greatly by
amount of serum used. In writing
other physicians for their experience al
these lines, I find that they have enc
tered the same complication, with the
ception of Dr. J. T. Walles, of Portl

Ore., who reports to me one case in which he used four hundred and seventy cubic centimeters of serum with no rheumatic reaction whatever. We invariably look for some rheumatic symptoms following the administration of anti-diphtheric serum, and I think that the same is true of the use of all of our serums. I therefore believe that the anti-toxine, whether elaborated in the system of the patient himself, or whether introduced thereto by artificial means, seems to bring on that peculiar blood condition which is favorable to rheumatic attacks.

In our *post-mortem* work we often find heart changes in diphtheria, scarlatina, septicemia, pneumonia and la grippe cases that are identical to those found in rheumatism cases. Whether those heart changes are due purely to toxines, elaborated by the causative organisms, or to antitoxines elaborated by the system, or to lowered vitality, is a question which would be hard to answer. Even under the old theory of uric acid deposits, the heart changes encountered were poorly explained, and the fact that they followed rheumatism was more of a clinical observation than a scientific deduction. That these same heart conditions are encountered after acute infectious diseases, caused by the germs before mentioned, would indicate, to my mind, that they play an important role in these heart changes.

This year's grippal epidemic seemed to be secretive in its attack upon the heart muscle. Not only, in our experience in this locality, but in talking with physicians from over the entire middle South, they have encountered the same experience. The attack of la grippe was often heralded in by an attack of pericarditis, accompanied by great irregularity; especially was this true of the aged. In a good many cases death occurred from heart failure within the first three to five days, with apparently little trouble elsewhere, and yet they were distinctive cases of la grippe, the influenza bacillus being found in the sputum in every case, and sometimes in the circulating media, just before death, at least such was found in two of our cases. We were not permitted to make a *post-mortem* examination in either of these cases, consequently, we do not know the exact condition of the heart. One, however, had a previous mitral regurgitation, but within a few days from the beginning of the attack, murmurs were distinctly heard over the entire cardiac area.

Mitral regurgitation very commonly develops in even mild cases of pneumonia, where the tissue waste and the severity of the attack would scarcely warrant an anemia murmur. Both diphtheria and scarlatina have a very selective tendency toward the mitral valve, and in this case it must certainly come from direct influence through the circulating media of the micro-organism itself. Consequently, it seems to me more feasible to accredit many of the muscular and valvular changes, heretofore ascribed to rheumatism, to an attack of some germ disease.

I think in some cases of rheumatism, you can, by delving thoroughly into the family and personal history, find where the original rheumatic nidus was located. The reason that some persons are predisposed to rheumatism is very readily explained, because when these peculiar blood conditions once exist, there seems to be never an entire return to normal. The same as in an attack of small-pox, there is an immunity found, though we have never been able to find any difference in the blood examination before or after the attack. Yet this peculiar immunity remains, and in nearly every disease of germ origin there is left after the acute attack, either an immunity, or a predisposition, consequently, the same rule will hold good in these cases of recurrent rheumatism. Therefore, discover the secret of immunity and predisposition, find what an anti-toxine truly is, and you will undoubtedly discover the cause of rheumatism. Find a remedy that will put the circulating media in exactly the same condition that it was prior to the attack of an infectious disease, and you will have discovered the cure for rheumatism.

Enclosed find one dollar, for which send me the MEDICAL BRIEF for 1905. I can not do without the BRIEF. Keep pegging along for liberal medicine.—J. L. CARTER, M. D., Maxwell, Ky.

[Written for the MEDICAL BRIEF.]

Commonplace Remedies—Turpentine.

BY W. T. MARRS, M. D.,
Jewett, Ill.

It would be well for every physician to familiarize himself with the therapeutic possibilities of the remedies usually found in homes. One frequently finds himself in an isolated place without the very thing he most needs, when some homely remedy or appliance must be called into requisition. Again, many poor people, not able to pay the doctor's fee, to say nothing of a druggist's bill, may often obtain good and serviceable treatment from remedies regarded as valueless, simply by reason of their cheapness.

In this short article I wish to call attention to a drug which is cheap, valuable and nearly always at hand.

Turpentine, divested of its homely name, frequently comes under our notice in some form of derivative or analogue. Among these are the oils of succini and thujæ, terebene, terepine, sanitas, etc. All of which are good remedies for their separate indications.

The dose of turpentine is from five to fifteen drops in pearls, capsules, or emulsion. Given as an emulsion with glycerine, the taste is, in a measure, disguised. The dose as an anthelmintic is from a teaspoonful to a tablespoonful. When thus given in large doses it should be combined with castor oil, in order to hasten its elimination from the system. Large doses irritate the kidneys and irreparable damage may, possibly, ensue. In Bright's disease, or any abnormal state of the urinary tract, turpentine should never be given in doses beyond the minimum. Strangury, hematuria and other untoward symptoms may be produced. The normal urinary tract, however, usually tolerates large doses of this drug. One girl under my observation stated that she drank a half pint of turpentine with abortive intent, not to get the desired result, nor any unpleasant symptoms.

The vapors produce in susceptible persons a nasal and renal irritation. The writer always observes his urine to have the characteristic odor after having only poured turpentine from one bottl another. From this and other facts I upon it as being a two-edged sword.

Turpentine, in goodly-sized doses, stimulant to the vaso-motor system, ing for a time increased arterial ten Years ago the old backwoods doctor finding his patient nearly moribund, a teaspoonful of turpentine. Being a fusible stimulant and quick in action results were often gratifying.

In typhoid fever, after eliminants, pentine holds a conspicuous place, is likely to come in good play cally or internally, or both, during stage of the disease. It possesses gre antiseptic properties than many ag used for that purpose. It controls me ism and stays intestinal hemorrhage relieves chest symptoms and acts the secretions in a way not easy to plain. A dry, cracked, brown tongue "turpentine tongue," as our homeo friends would say. In such a conditi is usually indicated, both locally an ternally.

Pneumonia, with symptoms simul typhoid, also suggests turpentine. wise many other fevers or low states

In puerperal fever turpentine is a able remedy used internally and, als stupes. A septic uterus, when swa out with turpentine and glycerine, parts, loses much of its bad odor, microbic action correspondingly less A tampon of this mixture will co *post-partum* hemorrhage.

Dr. Bevill, in the *Medical Sum* states that turpentine will remove odors from the hands, such as result handling decayed placentæ, uterine cer, etc.

Turpentine when taken into the m causes heat, burning and a flow of s From this fact one would think it co indicated in mercurial ptyalism—si adding fire to the flame, but among laity, where it is used for this pur I find that it very materially cuts this troublesome condition.

Turpentine when exposed to the a comes somewhat ozonized by abso oxygen, which it retains tenaciously, increasing its efficiency in the treat of wounds. Nail thrusts and other ture wounds, when cleaned and tr

with turpentine, to which a little carbolic acid has been added, seldom give trouble.

Acne rosacea usually improve under inunctions of turpentine. It is also a good remedy in chronic eczema, with thickened epidermis.

Turpentine and ether make an allround anodyne and anti-spasmodic.

An ounce each of turpentine, aqua ammonia and vinegar in a quart of boiling water produce vapors which relieve asthma, croup and other forms of dyspnea.

Young infants, with anuria, are invariably relieved by the application of cloths wrung out of a quart of hot water, to which has been added a drachm or two of turpentine.

[Written for the MEDICAL BRIEF.]

Physical Treatment of Heart Disease.

BY EPHRAIM CUTTER, M. D.,
New York City.

A strong, stalwart policeman with heart disease came into our office, panting, with a pulse of one hundred and sixty. He was put into a chair specially made so that his heels were higher than his head. In ten minutes his pulse was eighty, a reduction of one-half. The writer knows of no physic that would do this—that was done by physics alone.

Briefly, the physical signs were dullness on percussion over twice the normal cardiac area; palpation showed impulse spread over said area; auscultation showed heart's sounds almost normal over said area. Some months later the man died suddenly, after he had done both day and night duty in his profession!

A feeble young man, with physical signs of enlarged heart and valvular disease, came up stairs one flight, too fast, and entered our office breathless with palpitation, with increased impulse over an enlarged area and signs of immediate death. He was accorded the same treatment as the other, and in ten minutes he came down to his normal condition. A few weeks later he was talking with his mother at home, and the butcher coming along in his cart he jokingly told her to go and buy the things he ought not to eat. When she returned he was dead.

A middle-aged lady had attacks of pain in her enlarged heart (with mitral murmur) that ran up to the left shoulder and down the left arm, dyspnea, a feeling as if a giant hand was squeezing her to immediate death. At the outset these anginas were relieved by Hoffman's anodyne, brandy or whisky. But the frequency increasing she was put on the same invalid chair (to be seen, not for sale) at offices. When the anginas came on she would be lowered as to her head and raised as to her feet and the attacks would cease physicless. She lived twenty-two and one-half years after this, to die of another complaint, but for years before her death the mitral murmur disappeared, and a physician from a foreign country coming in was asked to examine her heart and tell what the matter was with it. He did so, and said he could find nothing wrong.

Of course, Nature naturally, all the time trying to cure, did these cures, because said supine posture, acting according to Nature's physical laws, aided. When we stand erect the heart has to pump against the capillaries in the feet with a pressure of blood (sanguinostatic) the height of our crowns. Completely reversing this posture it is evident that the heart would send the blood through the arteries and capillaries readily, and the blood would return by its own weight to fill the void in the heart. In other words, the physical work of the heart would be lessened by having no weight of venous blood to lift, and by the addition of said weight to propel itself downward. Of course, such patients as these named could not be stood on their heads in this posture, though medical gymnasts hang people up by their toes and report good results. But in the postures named in the above cases there was a partial operation of said physics that certainly did much good as a medicine.

The condition of the blood stream, when filled with ropy, adhesive corpuscles, with fibrin filaments, manifest in enlargements, in threads single and in skeins, and thrombi, with crystals of uric acid, urate of soda, triple phosphate, oxalate of lime, cystin, cholesterine, stellin, etc., as pointed out by American observers, or as heart-stones, referred to in German medi-

cine in 1729 A. D., makes most important and interesting physics for treatment. If hydrant water runs through pipes freely because it is not dense as molasses; because it is filled with masses of algæ or flora, or aggregated fauna (animal parasites are found in the blood stream); because it is not clogged with gravel stones. (The above-named crystals exist in solution in the blood and in the writer's opinion never would be found in the blood if the patient had drunk water enough to furnish the menstruum for their solution, and because crystals of cholesterine roughen the inside of the arteries, as in atheroma.) It is easy to see how such like physics in the blood stream increase the work of the heart, to name nothing more.

The writer testifies as a secondary witness that blood abnormal as the above has been made normal by the plans of the American authority who first pointed out these physical obstacles, in full, in the blood stream. In fact, it should be stated that the three cases above all had some of the said physics of blood obstruction, and that the latter was removed by treatment which the present limits forbid explaining, save to say that if the urine is kept at a specific gravity of 1015-1020 by drinking enough water, hot or cold, then the said crystals, at least, would not form in the blood, and when formed are more or less removed thereby. Indeed, if you have but one medicine to treat a case of this kind with, use water and stick to it (dictum by the master).

949 Broadway.

[Written for the MEDICAL BRIEF.]

Cerebro-Spinal Meningitis.

BY JOHN MAYFIELD, M. D.,
Denison, Texas.

I notice in the June number of the MEDICAL BRIEF you wish some information from any physician who has had some experience in that terrible disease cerebro-spinal meningitis.

I will give you the cases of two boys in same family. Sons of Mr. Thomas Grundy, of near Springfield, Ky. I had seen some cases before I saw those boys, but all died. This was in the sprin 1874. The oldest boy, about thirteen, taken very suddenly with all the promi symptoms of cerebro-spinal menin head thrown back, muscles very r soon coma supervened, soon became conscious. All the usual remedies been used to quiet the nervous syste valerian and the bromides—and he on the sixth day after he was taken The next day another boy, eleven y old, was taken with all the same s toms as the first boy; never were two more alike. Dr. Green, of Spring Ky., was in consultaton. We infor Mr. Grundy that we were fearful that boy would die also. Being a wea man, we suggested sending to L ville for Dr. D. W. Yandell (now de He came on the first train, had Grundy send to the pasture for a sh had it brought near the house, and dered the hide taken off as soon as p ble, while hot; had the boy strippe his clothing, hide spread out on mattress, and the boy wrapped up in it. three or four hours his nervous sy was so relaxed that his head relaxed nearly its normal position, and the recovered rapidly.

Up to that time I had seen a few and this one was the first I had ever recover. I thought several times I w report this treatment, but such cases so rare that physicians soon forget a them.

Doctor, I know you understand the *dus operandi* of this treatment, somet to relax the system as soon as poss Yes, Doctor, this disease and the grip very much alike. You know the musc system is controlled by the nervous tem, and when you quiet the nerves quiet the muscles, and in these cases capillary circulation is cut off, so you by this treatment that is also restore

The reason I say this disease and are so much alike is that the treatm for one is good for both.

The worst case of grip (influenza) cured in one night. A kettle was f with water, and corn on the cob was in and boiled until very hot, and placed around the patient, and covere in bed. A fellow feels like he is in a nace.

[Written for the MEDICAL BRIEF.]

The Effect of Vaccination on Small-Pox.

BY P. S. AYERS, A. B., M. D.,

Paola, Kans.

I have just read and re-read the article on page 548, April BRIEF, written by Dr. Strickland, entitled, "Chicken-Pox." It fixes an impression which has been growing upon me for some time so strongly that I wish to answer this article.

Based upon an experience of twenty-five years the Doctor makes the declaration that unless there is a large death rate—ninety per cent among children and fifty per cent of all the afflicted—small-pox does not obtain, but that the malady is chicken-pox.

I would like to exhibit here some clinical statistics and close this article with a theory, so far as I know, of my own weaving.

During the past winter we have had a siege of the "chick-o-small-pox." In my position as health warden of our city, I have seen and investigated two hundred and forty-five cases of, as one of our older physicians, who has been averse to calling it small-pox, said, "This—this—this 'breaking out.'" The victims have ranged in ages from babes six months old to people of sixty years. With a number of exceptions, the premonitory symptoms were as follows: A feeling of lassitude for a day, chilly sensations, furred tongue, loss of appetite, fever (about 103° F.), headache, backache, aching all over for two days. The attending physician invariably diagnosing malarial fever; third to fourth day feeling all right and physician dismissing the case. About the fifth day, small, bright red spots, size of a pin-head, would appear on forehead, wrists and back. About five days after the eruption appeared they had increased in size and became filled with a semi-viscid, milky fluid. The eruption would continue to grow until the eighth or tenth day, when they would be filled with pus, the base being bright red in a circle, and exceedingly painful, or as the patient would say, "Awful sore." After coming into "full bloom," which was invariably eight to ten days, they would dry down very rapidly into a hard, dry, dark-colored knot, which in three or four days would drop off; then would commence a series of desquamations of thin, white, dry scales, requiring from start to finish from twenty-one to thirty days to leave the skin smooth and clean.

In all the cases where it was possible to determine the exact period of inoculation, the incubation period was fourteen days. In all the cases where one member of a family was stricken first, the other members came down just fourteen days from the beginning of the desquamation. In some instances some members of the family escaped entirely.

One family, consisting of parents and four children, will be given to illustrate. In November the children had an eruptive disease. The attending physician diagnosed chicken-pox. The neighbors protested, and another physician was called. He said chicken-pox. I, as health officer, was called and was satisfied the diagnosis was correct. On January 28 I was called to this same family and found the father sick, having had the premonitory history cited above, and now the small, red spots were appearing. I placed the family under quarantine. Just fourteen days from the date of beginning desquamation of the father, all four of the children took sick. Two of them had the eruption, thick and large, from the crown of the head to the palms of the hands and soles of the feet. The pain was excruciating for three days. The mother escaped entirely. She had been vaccinated. The quarantine was raised March 9. What did this family have?

I am told by the county health officer that there has been in the county, outside of our city, about three hundred cases, making a total of about five hundred and fifty cases, with only one death reported, none among children. If Dr. Strickland's mortality test must be applied, we have not had small-pox. People who had had chicken-pox two months previous had it in confluent form. What was it?

I admit that I have not been in the harness as long as most men of my age. Preparing for the practice I took a four years' academic course, a four years' clas-

sic collegiate course, then a three years' medical course, entering the actual ranks at thirty-three years of age and, consequently, have been in the active practice but seven years. I have noticed that many men who have been in the practice for twenty years or more demand the same clinical picture for positive diagnosis that was demanded fifty to one hundred years ago. If we demand the same for small-pox, why have we all these years been indulging in the barbarous superstition of vaccination?

My experience with several hundred cases in the past six years has been that people who were vaccinated had this eruptive disease very light; many not having it at all. Others who were not vaccinated, but whose parents and grandparents had been, had it light. Those who had not been vaccinated nor had their ancestors for generations back, had it very severe, were delirious, and the eruptions appeared in a mass from head to foot, and in many places were confluent.

It is certainly time physicians quit teaching the laity that vaccination renders one immune for a given period; the popular belief is that it "runs out" in seven years. If an attack of genuine small-pox renders one immune from contagion, the same result can certainly be had from vaccination. When the virus is put into the human system and we have "a take," this certainly carries the work of burning out the fuel of conflagration completely to a given point, the point depending upon the degree of susceptibility to the small-pox contagion, and will not "run out" during the life time of the individual. The conflagration started by once vaccinating may render one individual entirely immune and another only partially so. Then the course to pursue in the case of partial immunity is to revaccinate repeatedly, until it is impossible to get "a take." Then and not till then can we consider the individual immune.

It is certainly a bigoted assumption of superior intelligence for a physician to flatly and decisively say that this one or that one is immune for seven years or more who has had one successful "take." There is but one way to know and it can be known to a certainty. "Prove things" is certainly mandatory in t matter of vaccination. If vaccinati will "take," however light, small-pox w "take." It is possible to produce absolu immunity by repeated vaccinations. I peated vaccinations after immunity h been established causes no inconvenien whatever and proves susceptibility to t contagion. If a little renders an atta of small-pox light, then more—enough will prevent it, rendering the individu immune.

By repeated vaccinations, small-p can certainly be annihilated and driv from the country. Then we will ha done with this protracted controver among physicians as to whether we ha modified small-pox or severe chicken-p My own opinion as to the epidemic Kansas the past winter is that it is ger ine small-pox, with few exceptions, mo fied by several generations of vaccinati My theory is that by repeated vaccinati we can render any individual immune small-pox, and by repeating the proce sufficiently often prove a state of imm nity. My teaching shall be vaccina *vaccinate*, VACCINATE, revaccinate, *rev cinate*, REVACCINATE, and yet again vacc ate and revaccinate.

[Written for the MEDICAL BRIEF.]

Poison Ivy.

BY W. L. HUGHSTON, M. D.,
Red Banks, Miss.

In a country practice we often hav deal with a most troublesome affection the skin, caused by coming in cont with a vine commonly known as pois ivy, or, as it is called by most persons this section of the country, "poison oa

It causes a violent erythema, with mu swelling, intense burning and itching, e Until about seven or eight years ago had tried a great many remedies, witho much success. But about that time I s in some medical periodical a prescripti which, in my hands, has worked li magic, only a few applications being n essary for a complete cure.

I have seen some very severe cases lieved by two or three applications. T

simple prescription which I came across and have used with unvarying success, is as follows:

℞ Plumbi Acetat.....10 grains
Spts. Aetheris Nitrosi..... 1 ounce
M. Sig.: Apply on parts affected.

This simple prescription has been so successful in my hands that I hope it will benefit those physicians who have heretofore been unsuccessful in the treatment of this simple affection, as I have found that it is in the treatment of these simple affections that our text-books have given us little satisfaction.

[Written for the MEDICAL BRIEF.]

Reminiscences of a Country Practice.

BY J. W. BARKMAN, M. D.,
Hooks, Tex.

About twelve months past I wrote a short article for the BRIEF upon the treatment of dysentery, and closed by observing that I was disgusted by the many medical fads. And as for horse serum, I begged to be excused, and thought a man who would inject horse serum into the anatomy of man, woman or child, should be prohibited by law from practicing medicine. That I was nearly seventy-nine years old, and had been practicing medicine for fifty-six years; and that during the civil war between the States, diphtheria prevailed as an epidemic, in the location where I practiced. I treated a large number of cases and lost but one patient, and that was many years before horse serum had ever been thought of.

A very short time after my article appeared in the BRIEF, a postal card was mailed to my address without date or signature, saying a man who had practiced medicine fifty-six years, and would not use serum therapy, must be suffering from atrophy of the brain, and should leave earth and soar to heaven.

For the benefit of my critic I will give a short summary of my past experience, which extends over fifty-six years of country practice in the wilds of Arkansas. I practiced medicine for twelve months and while there I was sent for one evening to go twenty miles to amputate a negro boy's leg, who had shot himself through the ankle joint, and mortification had set in. I went, but it was night when I reached there. I examined the boy and saw that immediate amputation was imperative, and began to operate immediately.

My only light was sperm candles, held by negroes. That was before we knew anything about antiseptics, but I had been taught the importance of cleanliness. I chose from ten or twelve young negro men, a boy named Jake, who was an intelligent youth, with steady nerves. I instructed Jake how to administer the chloroform. I went to work, and amputated the limb. And when I would pull down an artery I called upon some one to hold the tenaculum until I could tie the vessel, but no one responded. I turned to a girl, fifteen years old, to hold the instrument until I could tie the artery, which she did with a nicety that was surprising. In less than four weeks my patient was going around on crutches.

I would like to know what my critic would have done, under similar circumstances, with no help, but ignorant, uneducated negroes. I believe he would have let the boy die, rather than operate, without the assistance of one or more doctors.

It was a case that called for immediate action. Delay might have resulted in the death of the patient. Having done most of my practice in the country, where I could not procure consultation, I had learned to depend upon my own resources.

Let me tell my critic, who thinks I should leave earth and soar to heaven, what I did on the coldest night we had last winter. I was sent for, at nine p. m., to go south, three miles, to wait upon a lady in labor. I went and delivered her of a ten-pound boy. I stayed with the lady one hour after the birth of the child. I then started for home. Before I had been in bed fifteen minutes I was called up again, to go east four miles, to wait upon another lady. I got up and pulled out, and got there just as aurora showed her first blush in the east, and delivered the lady of a fine girl. And as my critic

thinks I am so ignorant, in not using horse serum, that I should leave the earth and soar to heaven, let me tell him that during my fifty-six years of country practice I have waited upon hundreds of women in childbirth, and have never lost a case.

Of course country women are different from city ladies, but I have had to contend with some very critical cases, with abnormal presentations of all sorts and kinds, but I have never failed to turn the child, so it could pass to the light of day without the aid of instruments.

I have never had to use forceps, and I believe thousands of women have been ruined for life by their use, that could have been delivered in a natural way by trusting to the powers of nature, and by the judicious use of stimulants and relaxing remedies.

A few years ago I was sent for to assist a brother doctor in an obstetrical case. When I arrived he told me he had been in attendance for twelve or fourteen hours, and he did not believe she could be delivered without the use of forceps. He had already sent back to his office for forceps and had them sterilized, ready for use, and was only waiting for a consultation with myself.

I told him I would make a careful examination of the lady and then tell him what I thought best to do.

The lady was young (about nineteen years of age), stout and in perfect health.

Upon examination I found a large and perfectly-formed pelvis, with a natural presentation, but the os hard and rigid, but had commenced to dilate to the extent of a quarter dollar. Having finished the examination I told him I thought we might manage the case without their use, and that if he would turn the case over to me for one or two hours I thought the trouble would be over. He consented. I commenced by giving chloroform by inhalation in a moderate way, and in forty minutes I had her perspiring freely, and the muscles thoroughly relaxed. I then gave a whopping dose of the fluid extract of ergot, and in less than thirty minutes she had strong bearing-down pains, and in a very short time I delivered her of a live, healthy nine-pound child.

I believe in antiseptics, but I have seen doctors who thought it murder in the first degree not to scrub the hands with sterilized water and green soap, and then in a solution of carbolic acid, finishing off with chloride solution.

Before I examine a woman in labor I clean my finger nails and wash my hands in pure water and a good toilet soap, and then apply plenty of vaseline or fresh lard. And I have never had a woman who I have waited upon to have child bed, or puerperal fever.

When I find a remedy that has served me well, in critical cases, I never discard it for any other remedy until experience has proven it to be more efficient. By all means make a correct diagnosis of the case, and do not dilly-dally in the choice of remedies, but use such as your sober judgment and experience suggest as best and then persevere in their use.

Then use suggestion, which is a potent factor. Tell your patient you have treated and cured hundreds of cases just like his and that your remedies will cure him and you will save your patient.

Examination Questions of the Indiana State Board of Medical Registration and Examination. Indianapolis, Ind.

M. S. CANFIELD, M. D., President.
W. T. GOTT, M. D., Secretary.

(Continued from page 592.)

MEDICINE (ECLECTIC).

Submitted by M. C. CANFIELD, M. D., May, 1905

1. Give etiology, symptoms and treatment of acute gastritis.
2. Give etiology, symptoms and treatment of acute meningitis.
3. Give etiology, pathology, diagnosis and treatment of tabes mesenterica.
4. Give etiology, pathology and treatment of icterous neonatorum.
5. Give etiology, pathology and treatment of catarrhal laryngitis (croup).
6. Give etiology, pathology and treatment of chronic endocarditis.
7. Give etiology, pathology and treatment of acute adenitis.
8. Give etiology, pathology and treatment of parotitis (mumps).
9. From what diseases must variola be differentiated?
10. Give diagnosis, sequelæ and treatment of scarlatina.

ATERIA MEDICA AND THERAPEUTICS (ECLECTIC).

1. Give dose and indications for amyl nitris.
2. Give dose and indications for apis melli-ca.
3. Give dose and indications for cactus randiflorus.
4. Give dose and indications for collinsonia anadensis.
5. Give dose and indications for leptandra irginica.
6. Give description and uses of formalde-yde.
7. Give common name, indications, dose and ses of gossypium herb.
8. Give common name, indications, dose and ses of hyoscyamus niger.
9. Name the pathological condition for hich you would give cuprum, digitalis or igeron can.
10. How would you treat a patient who had ken one teaspoonful of specific tincture of elladonna?

GYNECOLOGY.

1. Define: *a*. The left latero-prone posi-on. *b*. The Trendelenburg position. Name me advantages of each position.
2. Give proper method of applying the hot aginal douche.
3. Give principal indications for tamponade.
4. What is your idea of drainage in major perations? Give chief cause of ventral hernia.
5. Give differential diagnosis of normal estation and ovarian cyst.
6. Define Alexander's operation. Give in-cations and contraindications for the opera-on.

OPTHALMOLOGY AND OTOLOGY.

1. Give causes, symptoms, diagnosis and reatment of granular conjuctivitis.
2. Define the field of vision. How may the mits of the visual field be roughly ascertained?
3. Give etiology, symptoms and treatment f acute inflammation of the middle ear.

MEDICINE (HOMEOPATHIC).

ubmitted by W. T. GOTT, M. D., May 2, 1905.

1. What is the specific gravity of normal lood? How may it be obtained?
2. Give etiology and remedies usually in-icated in erysipelas.
3. Define acute articular rheumatism. Name hree agents you consider most useful in the reatment of rheumatism.
4. Give cause and treatment of cerebro-pinal meningitis.
5. State causes, symptoms and treatment of ppendicitis.
6. Define dementia. Name two or more orms, and give treatment for each..
7. Give symptoms of paralysis agitans, rognosis and two agents most commonly in-icated.
8. State causes, symptoms, and remedies in-icated in cerebral anemia.
9. Give treatment and management of chronic gastric catarrh.
10. Give diagnosis and treatment of gastric dilatation.

MATERIA MEDICA AND THERAPEUTICS (HOMEOPATHIC).

1. Differentiate the characteristic symptoms of belladonna, hyoscyamus and stramonium.
2. What drugs are indicated in facial erysipelas with vesiculation?
3. Give the characteristic symptoms indicating the use of (*a*) podophyllum, (*b*) mercurius.
4. What is the general action of bryonia on serous membranes? Differentiate it with other drugs having similar action.
5. Name three drugs most frequently indicated in chronic nephritis.
6. Give the therapeutic individuality of sulphur and phosphorus.
7. State the characteristic action of rhus toxicodendron on the skin and muscular tissue.
8. Give the therapeutic individuality of acidum muriaticum.
9. Give the habitat and principal sphere of action of pulsatilla.
10. Give the therapeutic individuality of nux vomica.

OBSTETRICS.

1. Give physical signs of approaching labor.
2. Describe the mechanism of a natural labor.
3. What is meant by the "bag of waters?" Should it be ruptured? If so, when?
4. Give cause and treatment of prolapse of the cord.
5. What are the dangers to be apprehended to the mother from a miscarriage?
6. Does the death of the unborn child occur simultaneously with death of the mother? What course would you pursue in such a case?
7. What significance would you attach to marked edema of the lower limbs of the enceinte?
8. What changes take place in the heart of the mother during pregnancy?
9. Give technique of asepsis in the management of labor.
10. Give cause and treatment of ophthalmia neonatorum.

PHYSIO-MEDICAL PRACTICE.

1. Mention three distinct varieties of dysentery, giving treatment for each.
2. Give the diagnostic symptoms and correct treatment of diphtheria.
3. Give the pathognomic symptoms and treatment of syphilis.
4. Give the symptoms of locomotor ataxia, with a brief definition.
5. Define interstitial nephritis.
6. Name the forms of laryngitis, with the diagnostic symptoms in each.
7. Give the synonyms and the diagnostic symptoms of chorea.
8. Give the definition, diagnostic symptoms and medical treatment of appendicitis.

9. How would you treat broncho-pneumonia?
10. Name the three pathognomic symptoms of exophthalmic goitre.

PHYSIO-MEDICAL MATERIA MEDICA

1. Give the dose and physiological action of pulsatilla.
2. What is the physiological effect of quinine?
3. Write a compound prescription for a patient afflicted with inflammatory rheumatism.
4. Mention three of the most efficient drugs for the relief of chronic constipation.
5. Give the dose and therapeutic properties of fluid extract of cereus bonplandi.
6. Write a prescription containing apocynin, ieptandrin and podophyllin. State the conditions where this prescription would be applicable, and give directions for its use.
7. Mention three cardiac stimulants and three vaso-constrictors.
8. Name the alkaloids contained in the rhizone of golden seal and give the dose of the various preparations of golden seal.
9. Write a prescription for a patient with hepatic colic.
10. Give the physiological action and therapeutics of valerian.

THEORY AND PRACTICE OF OSTEOPATHY.

Submitted by J. E. P. HOLLAND, D. O., May, 1905.

1. Give etiology, prognosis, symptoms and treatment of hay fever.
2. Give etiology, symptoms and treatment of lobar pneumonia.
3. Give diagnosis and treatment of parenchymatous nephritis.
4. Give symptoms and treatment of the first stage of pulmonary tuberculosis.
5. Give symptoms, prognosis and treatment of chronic constipation.
6. Give pathology, symptoms and treatment of acute articular rheumatism.
7. Give prognosis and treatment of (*a*) writers' paralysis, (*b*) telegraphers' paralysis.
8. Give etiology, symptoms and treatment of sciatica.
9. Give treatment of paralysis agitans.
10. In what diseases are the following physical signs present: (*a*) barrel-shaped chest, (*b*) sugar in urine, (*c*) viscid, rusty colored sputum, (*d*) fecal vomiting, (*e*) urinous odor from the skin and breath.

SURGERY (OSTEOPATHIC).

1. Give names of four antiseptics in the order of their potency.
2. Give treatment of hydrocele of the testicle.
3. Give treatment of a tubercular abscess.
4. Give treatment of chancre.
5. Give symptoms and treatment of appendicitis.
6. Give symptoms and treatment of fracture of the middle third of the femur.
7. Give symptoms and treatment of a P fracture.
8. Give symptoms and treatment of a location of the femur onto the dorsum of ilium.
9. Differentiate fracture of the outer t of the clavicle and a subcoracoid disloca of the shoulder.
10. Describe (*a*) compound fracture, simple fracture.

PRINCIPLES OF OSTEOPATHY.

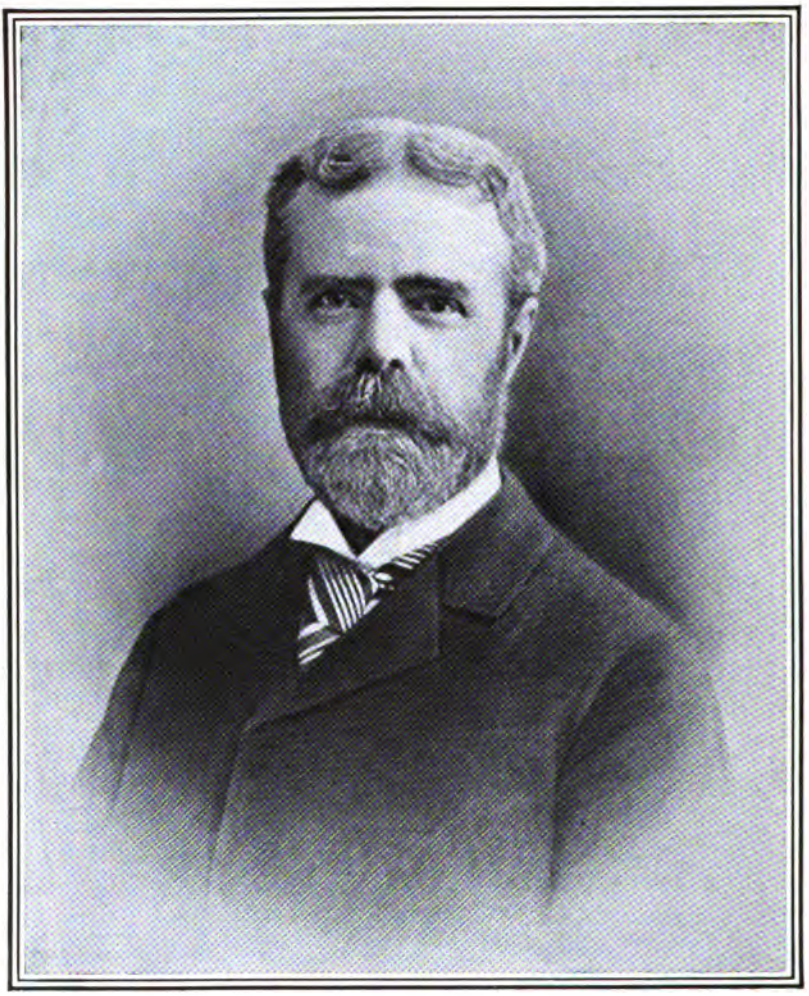
1. Describe a lesion and give two ca explaining how.
2. Give technique of correcting an inn nate which is forward and upward.
3. How would you correct an anterior dition of the third, fourth and fifth lu vertebræ?
4. What is the best way of correctin spinal curvature in which the primary cur convex to the right and is at the lower do and upper lumbar region, the secondary c being at the upper dorsal region?
5. Give technique of correcting the fol ing: (*a*) anterior atlas, (*b*) posterior axis, posterior fifth dorsal, (*d*) depressed fifth (*e*) depressed first rib.
6. How would you treat a rotated spin
7. In facial paralysis what nerves affected and how would you treat?
8. Give treatment for torticollis.
9. Name four disorders caused by a pressed fourth rib and explain how.
10. Explain (*a*) stimulation, (*b*) inhibi

GYNECOLOGY (OSTEOPATHIC).

1. Define gynecology.
2. What is meant by (*a*) puberty, menopause.
3. Give causes, symptoms and treatmen (*a*) dysmenorrhea, (*b*) amenorrhea.
4. Define subinvolution, giving causes treatment.
5. Name three kinds of lacerated cervix describe same.
6. When and how would you repair a la ated perineum?
7. Give symptoms, prognosis and treatm of carcinoma of the cervix.

OBSTETRICS (OSTEOPATHIC).

1. What is meant by L. O. A., R. O. L. O. P., R. O. P.?
2. What and how many stages of labor there?
3. What is meant by placenta previa.
4. Of what is the umbilical cord compos
5. Describe fetal circulation.
6. Give the management of the second s of labor.
7. Give treatment for threatened abort
8. Give indications for the use of stetric forceps.
9. Give diameters of the female pelvis
10. Give hygiene of lying-in room.



Frank C. Ward M.D.

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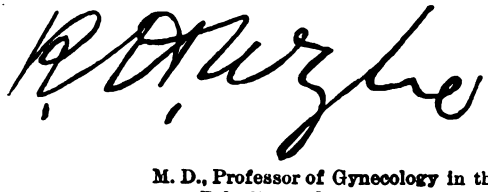

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THE MEDICAL BRIEF

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Editorial.

Mastication.

Unfortunately many people do not understand the importance of proper mastication to digestion. It is not only that the saliva contains a digestive principle, ptyalin, essential to the conversion of foods containing starch, but the mechanical manipulation of the food, reducing it to a soft pulp, makes it set better on the stomach.

Indigestion has, in many instances, been entirely relieved by insisting on deliberate and thorough chewing of the food. Occasionally physicians suggest that the patient chew gum for a few minutes after eating. While this does tend to relieve flatulence to a certain extent, by stimulating a flow of saliva, the food does not get the benefit of the grinding and mixing which takes place when mastication is correctly performed.

Not long since, we prescribed olive oil for a patient who was suffering from recurring colicky pains in the bowels, and losing weight. At the next visit the patient complained that he could not digest the oil. He was told to masticate it well so that it should be thoroughly mixed with saliva. After this he had no further trouble.

We are aware that saliva is supposed to have no effect upon oil, which is digested in the small intestine, but the fact remains that the oil, when well mixed with saliva, gave no trouble to the digestive organs. It is possible that the saliva, aided by the churning which the oil received during the motion of chewing, emulsified it in a degree, thus making it easier of digestion.

Whatever the explanation, the fact remains that olive oil, when masticated, usually causes no trouble, and it will be well for doctors to instruct patients on this point when prescribing the oil.

Medical Liberty.

Every man owes it to his country, his children and himself to do what he can in the cause of liberty. The medical profession has not escaped the tendency of the

times to use organizations to bind and tie the hands of individuals. Yet to make the medical profession great, the individual doctor must be great, and this, in turn, necessitates the fullest possible measure of liberty.

Class legislation works on the principle of robbing Peter to pay Paul, a precedent which involves no increase of wealth, and, like all injustice, is selfish and short-sighted.

The moment a man is given to understand that he jeopardizes his standing, his future, his interests, by an independent stand, all his energies slacken. He inevitably becomes less straightforward, less sincere and courageous. Instead of asking himself what is the right thing to do, he questions what course is most prudent or politic. He does not hurl himself into the breach in an emergency, he does not rack his brain for ways and means, he consults the precedents established by authority, and exempts himself from responsibility. A machine man follows instructions, whether or not he "makes good." That is a secondary consideration.

If we look around us and see what organizations and political methods have done for commerce, for industry, for government, we can see nothing to be gained from their adoption in medicine. Medicine is in an advanced state in the United States because of the liberty enjoyed for so many years. Since the era of fads and theories set in, and the legislative mills began laying down restrictions, the medical profession has been almost at a standstill.

Would it not be well for us to shake off this appearance of apathy and indifference, which is the political doctor's opportunity, and let it be understood exactly where we stand on this matter. If you believe in medical liberty, say so; do not leave it in doubt. Would you rather be a man than a cog in a big machine? Would you rather think your own thoughts, make your own decisions, carry out your own plans, or would you prefer to take orders as a private in the ranks of a semi-military body?

If you believe, as all history shows, that independence and self-reliance are conditions inseparable from man's best development, then wake up and do your part to preserve those conditions.

Governmental and Municipal Ownership.

Will the fellows who are always s cating governmental and municipal ership of railways, street car lines, gas electric light plants, stop and think a ment what private ownership has actu done for us in the past twenty or th years, bearing all the responsibility, confronting difficulties and problems t unknown. Do you remember the da the tallow dip and kerosene lamp, more expensive as regards illumina than gas is to-day. Carry your mind to the horse car, with no light or h floors covered with straw, six and cent fares.

Illumination is cheaper now tha ever has been in the history of the c try, and transit facilities are better. this has been accomplished by private terprise, the wear and tear of brain ti of men who did not spare themselves cause they were attending to their business.

Compare the flat of to-day in even poorer districts of our great ci equipped with bath, heating appar and other improvements, with the m able, dark, airless tenements of years

Progress is inevitably slow, the q tion of ways, means and cost bring u many problems which must find a p tical solution, but private ownership operation has accomplished wonders w we stop to think about it instead of tal it all for granted, and looking for so thing to grumble about.

Do those who advocate public ow ship ever stop to weigh the meanin the term seriously? Step into the p office and look at the dirt and smell air while you wait an hour or two fo overworked clerk to attend to you. L at the mail wagons, with their decr horses, and reflect upon the inadeq mailing facilities. Then ask yoursel private management would not ac plish better results.

Talk about graft! Does any thinl man really want to swap the governn of our forefathers for a political brick in the shape of public ownershi

Suppose, for instance, the governn did own the railways, and you were t eling on a fast train to catch a shi

to consummate a business deal, or to be present at a medical consultation, and some government official should telegraph to hold the train half a day for him, how would you like it?

There are some people who think that any change is better than what they have, and a politician is always keen to have the government do any and everything, for there are always axes which need grinding, and men looking for office.

The sentimental people who talk about the "good old times" would be the first to object if they had to go back to them. As for public ownership, it would be like jumping from the frying pan to the fire. The best minds can only be enlisted in private enterprises. What would become of progress and routine certainties if the management of practical affairs were committed to the academic mind? The idea of turning the machinery of civilization over to the graftsman on one hand, or the learned child on the other, seems preposterous when you come to think of it. Financial irresponsibility and demoralized service would be the least we could expect. "I" and "mine" have magic power to bring out the most and the best there is in a man, making him responsible in a way nothing else can do. Private ownership is and probably always will be the lever to accomplish practical results of the highest character.

Before we go any further with this idea of government ownership, suppose we do a little thinking. Turn the matter over in your mind as you would a case, Doctor, and see what you can make of it.

[Written for the MEDICAL BRIEF.]

Some of the More Commonly Encountered Conditions of the Stomach and Their Diagnosis.

BY LOUIS LEROY, M. D.,

Professor of Histology, Pathology and Bacteriology in the Medical Department of Vanderbilt University.
Nashville, Tenn.

Gastritis.—Perhaps the most common inflammatory condition of the stomach is acute catarrhal gastritis, and this should include all cases of toxic gastritis since both conditions are produced by fermentation products, or some variety of ptomaines. The symptoms vary, and in the cases of greater severity are accentuated, and the time of attack may vary from a few hours to several days. In general, it may be said that in the corrosive cases (poisoning by phosphorus, antimony, arsenic, or mercuric chloride) the symptoms appear quickly, and the pain, vomiting and prostration may be severe. Blood usually appears in the vomitus and urine, and a history of poison-swallowing can be elicited on examination. In the non-corrosive, the symptoms usually appear after eating; there is a sense of fullness, thirst, oppression, headache, sometimes dull pain, eructations and nausea, followed usually by vomiting, which in the milder cases brings relief. The severer cases are followed by an accentuation of these symptoms, and, in addition, there may be a sharp temperature rise, preceded by a chill, and in children there may be an erythematous rash, and in some cases jaundice.

Acute Suppurative Gastritis, or phlegmonous gastritis, resembles the foregoing in the early stages, but the pain and constitutional disturbances usually differ somewhat. The physical signs are not distinctive, but any pressure usually intensifies the pain. Prostration soon passes into a typhoid state, and that frequently into coma. If the vomitus be examined microscopically, blood and pus cells will be found and a leucocytosis will usually be observed, if the disease had progressed for several days.

In Chronic Catarrhal Gastritis the walls of the stomach vary in thickness as to whether an inflammatory deposit of fibrous tissue has occurred or not. In any event, the glands of the mucosa will be found atrophied, and the distinction between acid and parietal cells nearly if not completely lost. The pyloric end of the stomach usually suffers most, and may contain eroded areas closely bordering upon ulceration. The stomach is usually coated heavily with viscid, tenacious mucus, which shows desquamated epithelium upon microscopical examination. The amount of hydrochloric acid is diminished so that fermentation changes more easily occur, and the motor function is decreased to a considerable extent.

Among the more important subjective symptoms are, distress after eating, epi-

gastric pain, frequently palpitation of the heart, a bitter taste, which is persistent, excessive thirst, nausea. Among the reflex nervous symptoms are headache, either frontal or occipital, tending to occur before meals, and which may be associated with some nausea, vertigo, depression, amounting in some cases almost to melancholia, or an inability for concentrated attention, or disinclination to any activity. Insomnia, or drowsiness after meals. Urine is abundant, pale, of low specific gravity, and tends to deposit large amounts of urates and phosphates. This condition may resemble or be associated with the more immediate dangerous gastric lesions, but the diagnosis must be based upon the absence of the characteristic physical signs of the lesions, and upon the large amount of alkaline mucus, motor deficiency, and small percentage of HCl.

Gastric Ulcer, by which I mean the round or simple ulcer of the stomach, is easy of diagnosis, but when associated with other conditions (as it usually is) it taxes the diagnostic acumen of the physician. The three cardinal symptoms are pain, vomiting and hematemesis. More or less periodic attacks of gastralgia may be complained of; any food usually intensifies the pain; emesis tends to relieve. The posture which causes the greatest pain or relief may be of diagnostic value in locating the ulcer. Vomiting occurs two hours after meals, and is frequent. The vomitus contains an excessive amount of HCl.

When blood is present, it is of significance, but this sign is frequently absent. When it is present in small amounts, the circular character of the corpuscles may be destroyed by digestion, in which case it is necessary to recognize it by laboratory tests. When a large vessel is eroded there is no trouble in recognizing it, as hemorrhage may be so severe as to cause collapse and death in a short time.

In Gastralgia the pain is frequent when the stomach is empty, and may be relieved by eating. Tenderness upon deep pressure is usually absent, whereas hyperesthesia of the skin may be present. There is usually no disturbance between attacks. Hematemesis is absent, though this may also be absent for a time in ulcer also. The diet has little or no effect, and the general health may be good. Signs of tumor or dilatation are absent, and ne thenia and hysterical tendencies are ally manifest. In females, the peri life near or during the menopause i quently a predisposing cause.

Gastric Carcinoma when it occurs an old ulcer, and develops insidio may be impossible of diagnosis for a A constant endeavor should be ma this direction, however, as many of cases can be cured if operated in The onset may be abrupt. Anorexia but little pain is the rule in the stages. When there is much pain, it a lancinating character, and not o boring or burning nature usually able to ulcer. The pain is not as st localized, as a rule, and may be ref to the back, arms or shoulders, or of the abdomen, sometimes suggestin pendicitis. Vomiting is less frequent in ulcer or dilatation. The vomitus contain some blood if erosion has red, but is more frequently free fro A chemical examination of the stoma of great value, although not of abs certainty. When HCl is present in cinoma, the former may be said with fidence to be secondary to an ulcer. tic acid is usually present if HCl sent, and is due to fermentation, the HCl normally restricts. In add the microscope may reveal epithelial from the growth and certain charac tic bacteria.

While no one of these points singly may safely be used basis for a diagnosis, all of them together form a symptom complex can not be considered second to the ical picture, but neither the clinica laboratory findings should ever be c ered apart from the other in this more than in any other diagnosis.

146 North Spruce Street.

[Written for the MEDICAL BRIEF.]

Sycosis of the Beard.

BY T. HENRY WHITING, M. D.,
Elgin, Ill.

Use peroxide of hydrogen, then the following ointment:

R. Sulphur .....1 g
Oil of Rose.....2 d
White Vaseline.....4 o
M. Sig.: Apply at night.

THE MEDICAL BRIEF

J. J. LAWRENCE, A. M., M. D.,
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[Written for the MEDICAL BRIEF.]

Incipient Insanity.

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In the present article it will be my endeavor to give an account of a group of cases which we meet with in the earlier stages of incipient insanity, before the mental manifestations are pronounced, but in which we can clearly see the signs of an impending nervous breakdown. We are frequently consulted by the parents of young people over the age of puberty who have developed symptoms of restlessness, unnatural sensitiveness and self-consciousness, who have become what the parents call "strange in their manner," who at times seem momentarily forgetful of themselves and their surroundings, and at other times positively stupid. The usual history is that during school life the child has always been sensitive, emotional, and though quick at learning, never what one would call robust, but at the same time equal to entering into and enjoying the games and physical exercises of his fellows.

On leaving school to enter college, or to commence some business, his self-confidence fails him, and he develops the symptoms above enumerated. His attention is found to waver, and he can not concentrate his thoughts upon the work he has in hand. He will sit with a book before him, but after reading a page or two, you will find him gazing into space, "lost in thought," as it is termed, but really thinking about nothing, for there is a complete temporary arrest of mentation.

This is followed by a coming back to consciousness, and an effort to remember the subject matter of the book, a failure to do so, and a commencement to read the subject over again, with a similar result, until, wearied out with repeated endeavors, he either sinks into sleep, or, closing the book, throws it on one side, and proceeds to take up some physical exercise. And so, day by day, the same thing happens, till the youth lags behind his fellows, and his tutors or employers begin to entertain doubts as to his ability, and, wrongly attributing his mental weariness to laziness or want of interest in his work, endeavor by a course of increased severity of discipline to "make him attend to his studies," or his business, with the usual result that the wearied brain becomes more and more incapable of responding to the calls made upon it, until the unfortunate youth becomes morbidly sensitive, or reduced to a condition of actual stupor. It is generally at this

stage we are consulted about him. We are told he can not study, that he has no application, and that they can make nothing out of him, and we are asked to advise as to what should be done with him.

Let us consider a fairly typical case, one of this group. We find our patient a pleasant, easy-going youth, who converses with us in a nervous, fidgety way, gazing furtively about him, and answering our questions almost mechanically, while his hands are restless, seeking with his fingers for the arms of the chair on which he is seated, running his fingers along the contours of the woodwork, and interposing between his replies a silly, senseless laugh; the expression of his face is meaningless and he seems to be looking at something far away. We recognize that we have before us a case of mental exhaustion and we proceed to inquire into the history and as to what may be the probable causes that have led to this condition of mental weakness so evident in the manner and appearance of our patient. We will find that in all probability there is a history of a predisposition to mental disorder in the family of one or other of the parents, the symptoms complained of are of comparatively recent development and that it was not until he was about to leave school that anything was noticed to be wrong with regard to his health, also that he always seemed better when engaged in any outdoor occupation, and that it was only on his attempting to do any brain-work that the mental weakness became apparent. His memory was defective, and he could not add up a column of figures correctly without considerable difficulty, or remember the substance of more than a page or two of a book.

We find, also, on careful examination that there is a tendency to exaggerate his self-importance, and although you prove to him his want of mental attainments, he will still be inclined to consider himself better than his position warrants. This exaggerated self-importance is often the result of his too fond parents encouraging the too precocious ideas and mental inflation of their favorite or only child, and in failing to check the running over of childish day-dreams, and the building of castles in the air, which can only end in "vanity and vexation of spirit," for "that way madness lies," as we too of find, and it is only by ruthlessly digg up these weeds of misguided educat that we can hope to rescue our pati from the development of those grandi ideas which end in the mental disas of mania and dementia.

In thus briefly endeavoring to ske the leading symptoms in cases of the cl under consideration, we must not l sight of the fact that the symptoms, though present and distinctly observa are still by no means strongly marked, that they do not as yet constitute a inite condition of mental unsoundn These cases are still on the sane side the line, though they are gradually proaching the opposite condition, and less arrested, may ultimately become tifiable.

With regard to *causation*, I have m tioned the family history, which sh predisposition to mental irritability. T there is the effect upon the growing m of defective social surroundings, the quiring of bad habits from companic and the tendency to over-education, wh acts so disastrously upon those who h a hereditary tendency to mental derar ment.

It would be difficult to enforce strongly the observance of the princi that the school-life of this neurotic cl is the most critical time of moral and p sical development; it is the period wh the most careful and discriminating pervision must be exercised. I would pecially emphasize the moral aspect education, because I have through a l experience but too often seen the sad sults of carelessness, or want of kno edge, on the part of those who have committed to their care the training education of the young. It is a fact, yond all shadow of controversy, that m turbation is largely prevalent in scho for both sexes, and it is especially among the highly-strung, sensitive spring of the neurotic. Any head o school, male or female, who would ture to say otherwise would display amount of ignorance which should qualify for such a position. In the patients' room of our hospital, the nu ber of young people, of both sexes, are brought for advice and treatment

disorders which can be clearly traced to the habit, are too numerous to be disregarded, and they carry conviction.

There can be no doubt that education properly conducted upon lines based upon the elements of physical and mental physiology is a potent factor in warding off insane developments in those predisposed to them by neurotic heredity; and so, on the other hand, we find that when the education has been faulty, either by reason of deficient moral supervision and training, or from disregard of the physical and mental strength, ability, and idiosyncrasies of the pupil, the foundation is laid for the development of the symptoms which we so often find make their appearance among the young adolescents on leaving school to enter upon the battle of life, and maintain their individuality in the world.

I would say, with regard to masturbation, that although it exists largely where numbers of boys and girls are collected together, as in schools, in which the habit is taught by one to another, and so indulged in to great excess (unless checked by that watchful supervision which should always be in force, yet exercised in such a manner as to be almost unobserved), yet the habit is also now and then acquired accidentally by very young children without any teaching from without.

It is especially so among the neurotic children which come under observation for all the various nervous disorders, such as those we see at a special hospital for nervous diseases. Among the children admitted as in-patients of even three or four years of age, the habit appears, and it is not difficult to imagine how in the later years of school life and adolescence, the pernicious habit may be fostered and encouraged by vicious associates.

It is needless to point out the serious results which are bound to follow the long-continued recurrence of conditions of high nervous excitement and shock which the frequent indulgence in the habit must engender, but the fact can not be too frequently stated, in the hope that by frequent repetition attention may be kept alive, and watchfulness stimulated to check it.

In thus dealing with the question of masturbation as a cause of incipient insanity, I would repeat that it must always be borne in mind that it is frequently met with in both sexes as a symptom of mental and nervous instability brought about by other causes, in which heredity plays a leading part.

Treatment.—This resolves itself into rest for the brain, and improvement of the moral and physical health generally. It is useless endeavoring to encourage mental work when the brain and nervous system are in a state of weakness and exhaustion. It is far better that study or business should at once be given up for a time, and that the patient should be encouraged to engage in some healthy physical occupation, but it must be under a kind yet vigilant supervision, for without it the treatment is sure to fail. It is extremely satisfactory to observe the effect of a few weeks of farm, say, or garden work upon the mental condition of the patient, work which puts the muscular system into good training and condition, and brings the physical health generally up to a high standard of excellence. The mental processes should be allowed, to a great extent, to "lie fallow," and no greater strain put upon the attention than that which the simple operations of mechanical labor demand.

Meanwhile, pure air, cheerful companionship, with a good healthy moral tone, combined with sympathy and kindness, all tend to relieve monotony, and the result is soon seen in the increasing strength of the body, and the awakening activity of the mental processes which will ere long commence to assert themselves.

The general appearance and conduct of the patient soon betokens the return of nervous stability and mental vigor; the vacillating uncertainty and morbid shyness, the furtive glance, and the shuffling gait, are replaced by directness of purpose, and an upright bearing, while the patient slowly and surely recovers. If possible, the period of recuperation should never be less than three months, so that the improvement may be continued and confirmed.

Much, of course, depends upon the nature of the case, and the temperament of the patient, but we should certainly err on the side of caution, and discourage any

attempt at mental work until the tone of the brain and nervous system has been thoroughly restored. When we are satisfied upon this point we may commence a course of mind-training, gradually and carefully enlarging the scope of the mental work until we find our patient able to calculate, concentrate his attention, and exercise forethought and discrimination in work which a few months before had been completely beyond his powers.

In all these cases of youthful breakdown we have to act promptly and decisively. There is nothing to be gained by allowing the patient to struggle on with mental work when the brain is out of gear. The only hope of recovery lies in mental rest, and such physical training as is suitable to the age, sex, and nature of the case, and when once it is diagnosed, the sooner the treatment is commenced the better.

I have said nothing about medical treatment, for, beyond the ordinary medicines necessary for keeping the various excretions in order, but little is required. A little bromide judiciously administered (when there is a tendency to over-excitement, or extreme restlessness), combined with extract salix nigra liquid, if the sexual system is too active will, as a rule, be all that is necessary. Beyond this, "medicine out of the bottle" is not required, and the less the drugging of these cases is resorted to, the better it will be for the ultimate and permanent recovery of the patient.

[Written for the MEDICAL BRIEF.]

The Relation of the Unobliterated Funicular or Vaginal Process to the Production of Inguinal Hernia and Certain Forms of Hydrocele.

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While the role of the funicular process in the production of what is generally recognized as, and termed, congenital hernia is probably sufficiently understood, it may be found of use to the general practition to draw up something like a consiste scheme embodying the chief variations its closure, and the bearing of each up the production not only of hernia, but al of the several forms of hydrocele.

The student of surgery is apt to form somewhat imperfect idea of the impo ance of the process, and at any rate the close relation between its part in t development of hernia and the role may equally play in the production hydrocele. He usually reads the two su jects at different times; he looks on the as widely different lesions—as from son points of view they no doubt are; he s dom takes them up together, as he ough The result generally is that he finds hi self in considerable confusion, when, p haps, unaided, he suddenly realizes th they have between them the same co mon factor, viz., that process of peri neum which may, from whatever cau in whole or in part, at one level or at s other, fail to accomplish its normal obl eration.

After some considerable experience the teaching of surgery, I have found worth while to work the subject into more or less consistent scheme, embr ing the chief variations in the closure, obliteration, of the funicular process, dicating for each the possible patholo ical results in the production of hernia hydrocele.

This scheme has been so well receiv by my students, and seems to answer purpose so satisfactorily with them, th it is put forward here in somewhat conc form, and presented for the considerati of the student of a larger growth—t brother practitioner.

The accompanying diagrams will ser to illustrate the successive points in t scheme.

The Vaginal or Funicular Process is funnel-shaped sac of peritoneum, c nected at first with the general cavity the peritoneum, which at, or shortly aft birth should undergo obliteration, exc at its lower part, where it persists as covering to the testicle, viz., the *Tun Vaginalis Testis.* (Fig. A1.)

Suppose, then, that this normal p cess of obliteration has occurred, wh are the possibilities as regards both h

nia and hydrocele? Clearly, any hernia which may form will be of the type termed *acquired*, an entirely new peritoneal protrusion, being necessary for the formation of the sac, such sac descending along the inguinal canal into the scrotum, and in time reaching the testicle below, but shut off from this by the tunica vaginalis, which ensheathes it. (Fig. A3.)

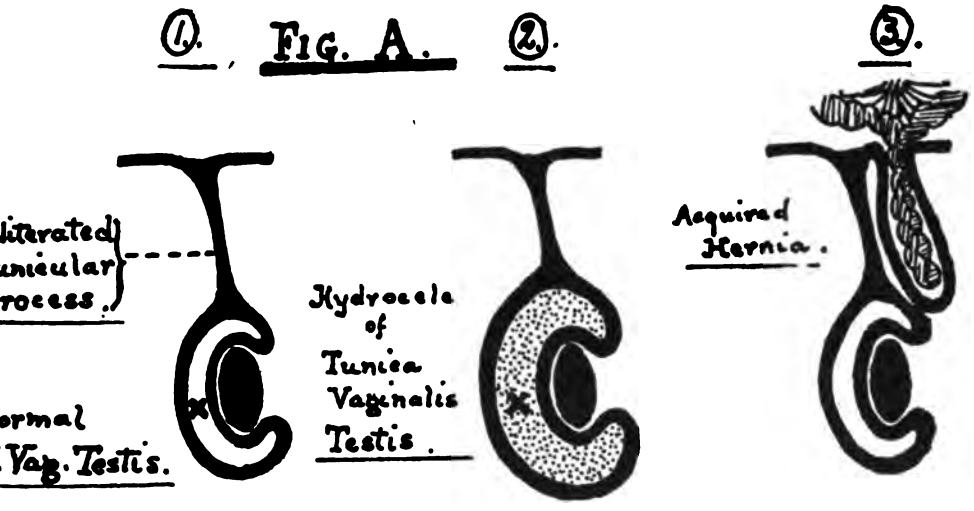
Or, on the other hand, a *hydrocele of the tunica vaginalis testis* may develop (Fig. A2). In the former, the cord will be, to some extent at least, concealed by the neck of the hernia; in the other it will be entirely free up to the point to which the bulging tunica vaginalis reaches.

The two conditions are distinct enough clinically, as they are anatomically, but

I. The funicular process may remain patent throughout its whole extent. (Fig. B1.)

II. *That portion of the process from the testicle up may remain patent*, and directly continuous with the general peritoneum, *occlusion taking place close to the testicle*, and tunica vaginalis testis being formed in the usual way. (Fig. C1.)

III. *The process may close at its upper (abdominal) end, remaining entirely patent from about the internal inguinal ring down*, the cavity of the tunica vaginalis testis being continued up along the cord in a funnel-shaped canal shut off from the general peritoneal cavity by the occluding diaphragm above. (Fig. D1.)



both are associated with the normal complete closure of the funicular process.

They may occur together, but confusion in diagnosis need seldom arise even then, for the hydrocele remains when the hernia has been reduced, and there are abundant means of clinical differentiation in addition, into which, however, it is no part of the object of this paper to enter.

So much, then, for the possibilities associated with normal completeness of obliteration of the funicular process.

Let us summarize the possibilities in the direction of incompleteness, and see what each of these may lead to as regards hernia and hydrocele.

IV. *The process may close above the testicle for a variable distance*, the tunica vaginalis testis being quite normally developed, *and obliteration also occur close to the internal inguinal ring, but some portion between these two points continue patent*, this patent part of the process being shut off above from the general peritoneal cavity, and below from the tunica vaginalis testis. (Fig. E1.)

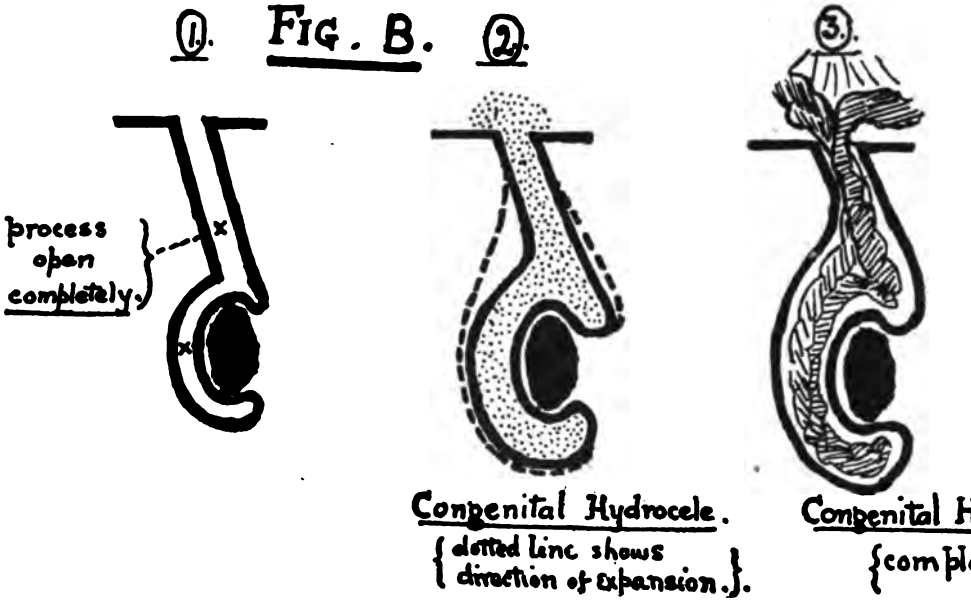
I. *The Funicular Process Remains Patent Throughout.* (Fig. B1.)

With a condition of this kind it is clear that any fluid collection in the peritoneal cavity will have free access to the whole canal, and may come to greatly distend

it. There is no separate tunica vaginalis testis, the whole cavity being unbroken. Hence, fluid may as readily flow up into the abdomen from the distal part of the sac when the recumbent posture is assumed, as it will certainly gravitate downwards again whenever the erect posture is adopted. A hydrocele of this type is generally known as a *congenital hydrocele*, though, looked at purely from the developmental point of view, the term "congenital" might with perfect justice be applied to hydroceles occurring under the other heads, II, III and IV. (Fig. B2.)

Similarly, if an hernial protrusion occurs along an entirely unobliterated process, the bowel finds its way down to the

track, potential or actual, which can demonstrated to have a definite devel mental role. That view may possil enough be correct, but for the present need not further concern us. The o point of importance seems to be that would probably be more satisfactory term this particular form of hernia simply "congenital," but *"complete c genital,"* the complete absence of ob eration allowing of the sac being occup throughout its entire extent by an truded viscus, not that this occupati need from the first be complete, but t from the first its potential value is t of a *"complete congenital" hernia.* (F B3.)



testicle, but, unlike "acquired hernia," is not checked there by the tunica vaginalis testis. The cavity of the tunica is not shut off above, hence the bowel finds its way free, and may ere long come to almost entirely embrace and conceal the testis.

That is the best recognized form of *congenital inguinal hernia.*

Apart from the fact that the other forms of hernia still to be mentioned might quite justifiably be termed "congenital," there is, of course, the further fact that not a few observers believe every hernia to be due to congenital deficiency, or, at least, to take place only along some

It is obvious that in the one case th may be present at the same time both c genital hydrocele and congenital hern Indeed, it is probable that where cong ital hydrocele of the complete variety present, the corresponding form of h nia must at some time appear, unl either the upper opening of the process somewhat narrowed, or the bowel is hu unusually high, its mesentery not bei long enough to allow of protrusion i a patent sac, a possibility of somewh remote nature.

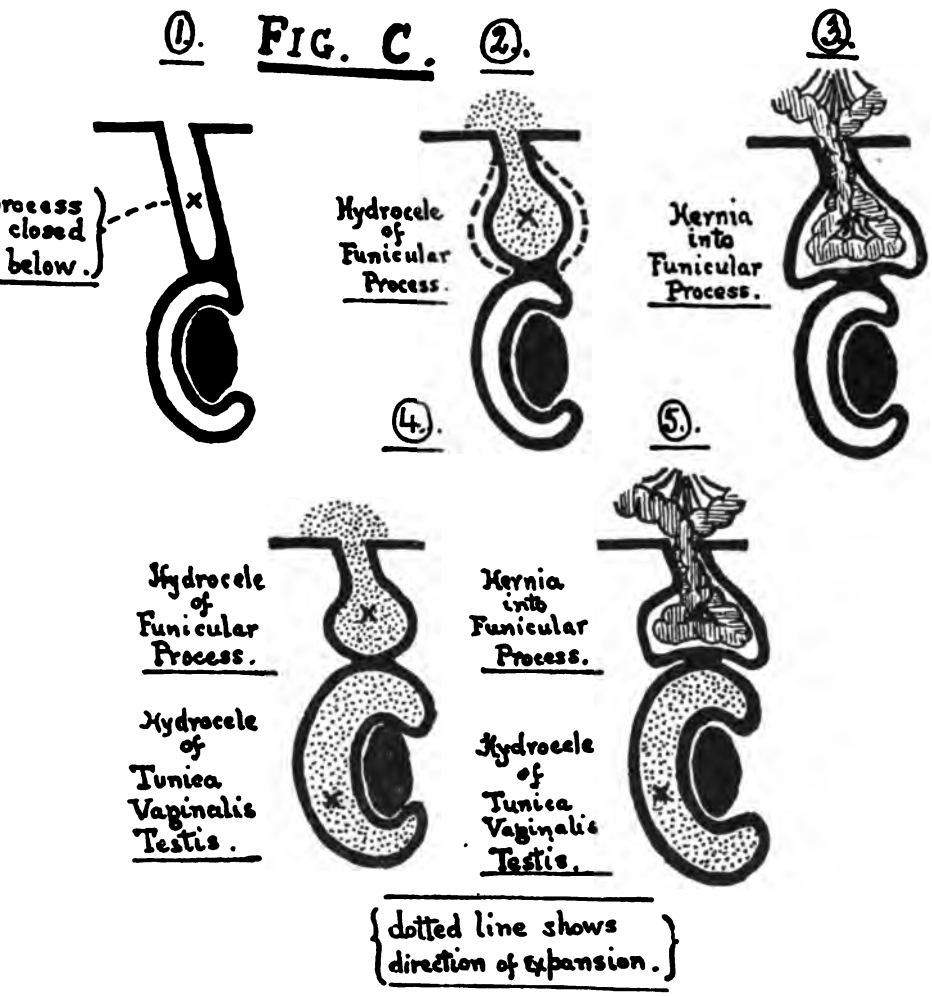
To illustrate the combination of her and hydrocele in this form would requ

merely a simple adaptation or composite arrangement of Figs. B2 and 3.

II. *The funicular process remains patent as far down as the testicle, but the tunica vaginalis testis is shut off below from the general cavity of the peritoneum above.* (Fig. C1.)

In this the possibilities are not unlike what we have just described under Class

Hydrocele of the upper unobliterated portion might quite reasonably be termed *"incomplete congenital" hydrocele*, and hernia into the same might be described as *"incomplete congenital" hernia.* As a matter of fact, the terms in common use regarding each are, *hydrocele of the funicular process, and hernia into the funicular process.* (Figs. C2 and 3.)



, with this difference, however, that the unica vaginalis testis is completely shut off below, and, consequently, fluid in the upper part of the funicular process does not communicate with any in the tunica vaginalis testis, neither does any bowel protruded from the abdomen along the upper patent channel reach further than the upper end of the testicle.

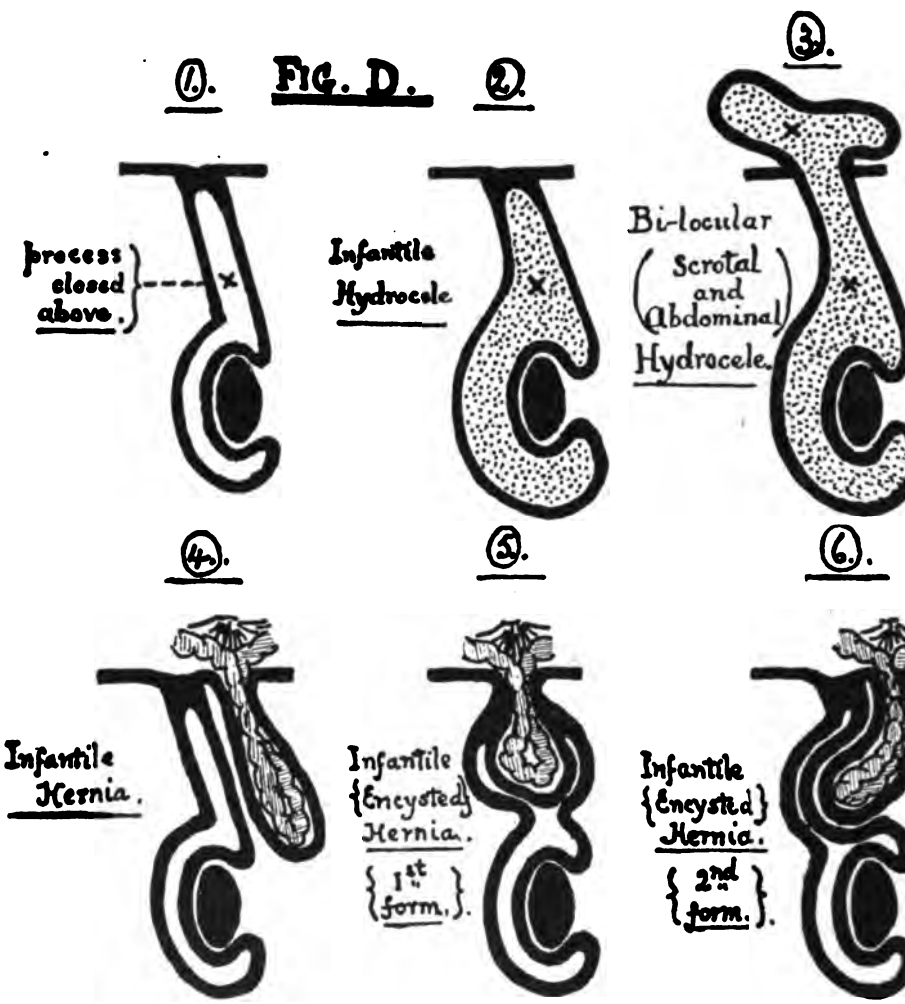
Further, not only may these exist together in the same case, but they may be present along with, though anatomically quite independent of, a hydrocele of the tunica vaginalis testis, a possibility illustrated by Figs. C4 and 5.

III. *The process becomes obliterated at its upper (abdominal) end, but remains patent below, so that the cavity of the*

tunica vaginalis testis is not normally shut off at the upper end of the testicle, but is continuous with the open funnel shaped canal passing upwards along the cord, perhaps as high as the internal inguinal ring. (Fig. D1.)

Where hydrocele develops in such a condition as this, the sac is formed from the whole distended process, as far up as the level of the obliteration, say at the internal inguinal ring. Although, strictly, such a condition is a congenital one, the term usually applied is that of *infantile hydrocele.* (Fig. D2.) If of considerable size, there is a large oval swelling below, continued upwards along the cord as far as the internal ring as a tense funnel-shaped process. If the tension be great,

the elements of the cord may not be d tinguishable from it, a marked point difference between it and ordinary hyd cele of the tunica vaginalis, above wh the cord can be easily isolated, as a ru From the ordinary or complete congeni hydrocele it differs in not emptying or laxing in tension with the adoption of recumbent posture.



A somewhat rare form of this hydroc is seen in the so-called bilocular, or sc tal and abdominal hydrocele.

In this it may be supposed that the t sion is great enough to distend the ob eration septum at the upper end, so th the hydrocele sac extends upwards to almost indefinite degree, forming some cases a huge intra-abdominal s

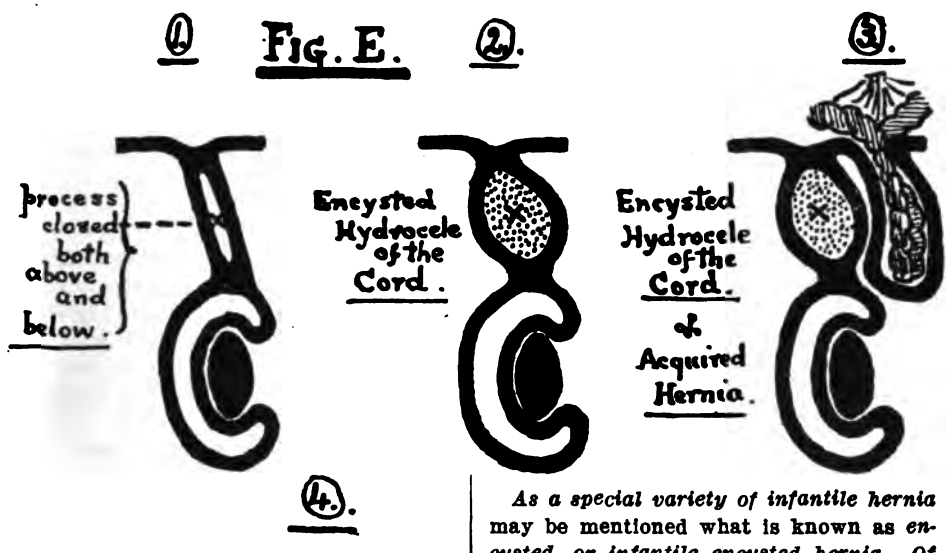
of course outside the cavity of the general peritoneum. Such a possibility is represented in Fig. D3.

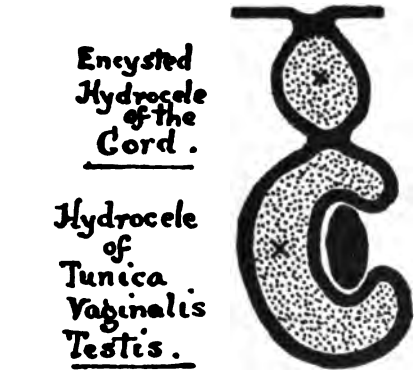
Hernia occurring in association with this state of the funicular process might in some cases be quite justifiably termed an acquired hernia.

The hernial sac is probably to some extent, at least, however, guided in its descent, if not actually encouraged, by the immature condition of things, and at any rate it usually presents certain abnormal anatomical relations.

Very often it emerges quite close to, but behind, the obliterated opening of the funicular process, and, passing downwards in the same relation to it, preserves as additional coverings to itself the two extra layers formed by the anterior and posterior layers of the process, so that, in cutting down upon the hernia, the surgeon's knife goes through (1) the anterior layer of the unobliterated funicular process, (2) the posterior layer of the same, (3) the peritoneal covering of the proper hernial sac, *i. e.*, three layers of peritoneum instead of the customary single layer.

This condition is known as *infantile hernia.* (Fig. D4.)





As a special variety of infantile hernia may be mentioned what is known as *encysted, or infantile encysted hernia. Of this, two forms are met with,* differing in reality only regarding the level at which occurs the process of invagination which characterizes them both.

In the one, the hernial sac is formed by distension, and bulging downwards of the obliteration septum, the hernia passing into the unobliterated funicular process below, carrying in front of it the stretched septum, and adjacent peritoneum. (Fig. D5.)

Here, the surgeon's knife would have to go through only two layers, viz., the anterior layer of the unobliterated funicular process, and the covering formed by the expanded septum and peritoneum drawn down with it.

In the other form the hernia is for some little distance quite behind the unobliterated funicular process, but then invaginates it, so that there are the same three layers as in the simple type of infantile hernia in front of any contained viscus. (Fig. D6.)

It is obvious, of course, that as in Class C, so also here hernia and hydrocele may occur together, but no separate diagramatic representation is necessary.

IV. *The process becomes obliterated both above and below, the tunica vaginalis testis being quite normally formed, but at some part of the canal failure of obliteration occurs.* (Fig. E1.)

In such a case, fluid may collect in, and distend, the unobliterated canal, and there is produced what is known as *encysted hydrocele of the cord* (Fig. E2). This may be quite small, or may distend within wide limits.

It has nothing in common with, though it is at times confused with, encysted hydrocele of the testicle or epididymis—conditions in most cases connected with embryonic or fetal structures (müllerian duct, Wolffian body, etc.).

Hernia occurring here will be of the ordinary acquired variety, though, of course, if the cyst of the cord be of considerable size or extent, it may, strictly speaking, have quite similar relations to the separate hernial sac, as does the unobliterated process in the typical infantile hernia. Surgically, however, this has no practical importance. (Fig. E3.)

A hydrocele of the tunica vaginalis testis may, obviously, be developed in the same case as an encysted hydrocele of the cord, but the two conditions are quite separate and independent. (Fig. E4.)

[Written for the MEDICAL BRIEF.]

The Universities of Scotland.

BY D. J. JONES, M. B., C. M. (EDIN.),
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As a medical graduate of the University of Edinburgh of many years' standing, and as one who has traveled in most parts of the world, and has had favorable opportunities of studying the educational advantages afforded by the universities of other countries, I gladly avail myself of the invitation of the Editor of the MEDICAL BRIEF to give a short account of university life in Scotland such as may be of practical use to our American confreres who contemplate a visit to the Land of Burns.

There are in Scotland four great versities:

1. The University of Edinburgh.
2. The University of Glasgow.
3. The University of Aberdeen.
4. The University of St. Andrews.

I have not arranged them in chronological order or in the order of their importance. They are all quite distinct and arate; that is to say, each of them has own governing body, and confers its degrees, although they are connected various links. For example, a profe moving from one Scottish University another—and this occurs sometim continues to count his years of ser just as if his whole life were passed one university.

It is curious that although so m American physicians and surgeons London annually, few of them thin worth while to spend a week or two Scotland. It is possible that they are terred by the distance, although tha inconsiderable. Edinburgh is four dred miles from London, and Glasgo mile or two further, but in a somew different direction. Aberdeen is five dred and forty miles, whilst St. Andr is four hundred and forty-four. these distances involve practically no of time, for the train services are so mirably arranged that the journey is peditiously performed at night, and just as easy to sleep in a comfort berth in the car as in one's hotel.

Take Edinburgh, for example: ther a service by four different lines, every evening six or eight trains l London for the northern capital. 11.30 P. M. Great Northern reaches E burgh at 7.15 A. M., and the 11.50 P. M the London & Northwestern arrive 7.50 A. M.

Aberdeen is equally accessible, for 11.50 P. M. from London arrives at its tination at 11.40 the next morning.

These trains, in addition to being comfortable, are run with absolute p tuality, and usually reach their respec destinations on the tick of the clock. is desirable, especially in the heigh the season—August and September—t cure a berth in advance, and this is ea arranged by telephone. On the Lon & Northwestern, and on most of the o

lines, a return ticket, by taking which a considerable saving is effected, is available on the homeward journey via either Edinburgh or Glasgow. Week-end tickets from Friday to Tuesday are also issued at considerably reduced fares; for example, the first-class return from London to Edinburgh, available from Friday to Tuesday, inclusive, is £3, or about fifteen dollars, with an additional charge each way of 7s. 6d., or two dollars, for the sleeper. Hotel accommodation in all these cities is excellent. In Edinburgh there are the North British and the Caledonian, both owned by the railway companies, whilst at Aberdeen the Imperial is a good type of a thoroughly comfortable hotel, long famed for its good cooking, good wines and superb whiskies.

These, however, although not unessential, are somewhat remote considerations, and have little or nothing to do with medical life in Scotland. I will endeavor to be more specific, and give a brief account first of Edinburgh, and then of the other Scottish universities.

Edinburgh, since the time of James IV, has been the capital of Scotland. It is one of the most beautiful cities in the world, and its appellation, "the Modern Athens," is really deserved. The town is built entirely of stone, and the Salisbury Crags, Arthur's Seat, Calton Hill, with the lovely blue of the Firth of Forth, are not easily surpassed. The university itself was founded in 1582, and the celebration of its tercentenary brought together a collection of distinguished men from all parts of the world which has probably never been equalled. I well remember the 17th of April, 1884, when the university conferred its highest honor, the degree of LL. D., on Louis Pasteur, Ferdinand de Lesseps, Pettenkofer of Munich, Wilhelm von Bunsen of Heidelberg, Cremona of Rome, Schmiedeberg of Strasburg, Virchow of Berlin, Jowett of Oxford, Samuel W. Gross of Philadelphia, and last, but not least, on His Excellency James Russell Lowell.

When I entered as a student, William Turner was the Professor of Anatomy, having been appointed to the Chair in 1867. He was not a Scotsman, but came from the north of England, and received his medical education in London. He was an admirable lecturer and demonstrator, and attracted crowds of students, amongst whom were numbered men of all nationalities, and from every quarter of the globe. Sir Wm. Turner is now Principal of the University, and at the head of affairs. A few years ago he was succeeded in his Chair by Professor Cunningham, M. D., LL. D., D. C. L., F. R. S., one of the most distinguished anatomists in the British Kingdom.

In my time, as now, Sir T. R. Fraser, the well-known pharmacologist, was Professor of Materia Medica, having succeeded Sir Robert Christison in 1877.

The present Professor of Medicine in the university is Professor Wyllie, who succeeded Sir Thomas Grainger Stewart.

The Professor of Physiology in my time was William Rutterford, a kindly man, and a good teacher, although of somewhat eccentric habits. He had succeeded Professor Hughes Bennett, and was followed in his turn by the present incumbent of the Chair, Professor Schäfer, an importation from University College, London, and a pupil of Sharpey and Burdon-Sanderson.

John Chiene, the Professor of Surgery, is one of the best exponents of Scotch surgery, and is a typical Scotsman.

The professors in the university have wards in the Royal Infirmary, and devote much time to systematic clinical teaching. One of the best teachers on the staff of the Royal Infirmary is George Gibson, the Editor of the *Edinburgh Medical Journal*. He is an accomplished physician, and commands a large following. Byrom Bramwell is known both as a pathologist and as a writer on diseases of the nervous system.

Another notable man in Edinburgh, although not a university professor, is Sir Patrick Heron Watson. His practice is a large one, and he numbers amongst his patients many distinguished people. The teaching in all branches of the medical faculty is thorough and practical. The classes are large, and the emoluments of the staff, although perhaps not so great as in former days, are still princely. The professors can afford to devote the whole of their time to their official duties, and are, as a rule, free from the cares of active practice. The cost to the student of his curriculum is comparatively small.

and bursaries, prizes, scholarships and fellowships, are freely bestowed. Many of the students in the early days were sons of small crofters, and came to Edinbugh with a bag of oatmeal, and a very small sum of ready cash, which had to suffice until their return home at the end of the session. This is not so common now as in days gone by, but the Scotch universities afford ample opportunities for the training of clever lads of small means.

Glasgow is a city of some seven hundred and sixty thousand inhabitants, and the commercial metropolis of Scotland, is on the Clyde, sixty miles from the sea. It is famous for its shipbuilding, and is a center of industries of all kinds. Although not so romantically situated as Edinburgh, it is surrounded by most beautiful country. The university was founded by Pope Nicholas V, and is a corporate body, with a Chancellor, Rector, Deans of Faculties, Principal, Professors and Students. The Rector is elected by the students, who are careful to choose as their representative some one of note in literature, science or politics. The competition for this honor is keen, and is conducted with all the formalities of a contested election. Glancing down the list of Rectors for the last half century we come across the names of Viscount Palmerston, the Rt. Hon. Benjamin Disraeli (Earl of Beaconsfield), William Ewart Gladstone, Joseph Chamberlain and Lord Roseberry.

That the university is in a prosperous condition is shown by the fact that during the last nine years the income has increased over £10,000 per annum, the sum being almost entirely derived from payments by students whose numbers have, in seven years, increased from one thousand eight hundred and thirty-six to two thousand two hundred and nineteen.

The list of professors at the present day comprises men who have made their mark in their respective specialties. The Professor of Materia Medica is Dr. Ralph Stockman, well known as a writer and lecturer on pharmacology, whilst Sir William Gairdner, Dr. M'Call Anderson, Professor M'Kendrick the physiologist, and Professor Cleland the anatomist, have all done good work. Sir William MacEwen, the Professor of Surgery, is as we known in America as in Scotland. In ad dition to these there are numerou younger men who take their share in th teaching, and many of whom by the influ of time will be incorporated in the un versity body.

The only objection that can be urged t even a temporary residence in Glasgo is that the climate at times leaves muc to be desired. Fog, mist and rain, wit cold bleak winds, prevail during the wi ter months, and even in the height of th summer are not unknown.

Aberdeen, the granite city of the nort is at the mouth of the Dee between it an the Don. The university derives its origi and endowments from two separate, an for a long time, independent foundation One of these, the university founded b William Elphinstone, Bishop of Aberdee dates from 1494-5, and within it was afte wards founded, in 1505, the College of S Mary, subsequently called King's Colleg The other foundation was that of Mari chal College, founded in 1593 by Georg Keith, fifth Earl of Marischal. The tw colleges, or academic corporations, bot exercising university rights and priv leges, co-existed for a long period as ind pendent and rival institutions, but wer finally incorporated in 1860 under th style and title of the University of Abe deen.

Since then it has flourished exceedingl and is now a great center of learnin comprising various faculties, of whic that of medicine is not the least prospe ous. The staff of professors comprise men of the highest reputation, one of th best known being Theodore Cash, M. D F. R. S., the Professor of Materia Medic and a pupil of Lauder Brunton. He is pure pharmacologist in the best sense o the word. Prof. Matthew Hay, formerl demonstrator to T. R. Fraser, of Edi burgh, is the incumbent of the Chair o Forensic Medicine and Medical Jurispr dence, whilst Prof. Hamilton is respons ble for Pathology. Both at Aberdeen an at Glasgow there are ample facilities fo girls to take their degrees in medicin At Glasgow, the men and women, at a events in some subjects, are kept apar but in the University of Aberdeen mixe classes are popular. The introduction o

the female element into the life of the university has given rise to no complications, and the influence of the girls over the young men is said to be beneficial rather than otherwise.

The University of St. Andrews comprises, as regards the Faculty of Medicine, the University College of St. Andrews and University College Dundee. It is, perhaps, less flourishing than the other Scottish universities, but is a good educational center.

Finsbury Park, W.

[Written for the MEDICAL BRIEF.]

Thoughts Regarding Some of Our Cardiac Remedies.

BY FRANK E. WEST, A. M., M. D.,

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From some of the phases presented by acute diseases, and the tendency possibly on the part of many to the use of the class of remedies generally called cardiac remedies, it would seem as though a thought or two regarding their action and indication might be opportune.

This class of remedies seems to be exceedingly popular and quite generally employed, possibly in some instances when others might be more wisely selected. For a clear scientific application of these agents, we ought to bear in mind their physiological action in selecting the remedy to be employed.

Perhaps in no class of cases is it more important to individualize our patient.

General teaching is that such an agent as digitalis is indicated by loss of cardiac power. This loss of power may be occasioned by various causes independently of any weakness inherent to the heart muscle. Where the loss of power is due to the weakness in the heart itself, and there being no other contrary indications, such as degeneration, either cardiac or vascular, digitalis will frequently serve a purpose. But where the loss of power is toxic, or by increased cardiac force through the use of digitalis, there is danger of cardiac strain—as so frequently the case—then its use is certainly unwise, except as this action is overcome by the use of such agents as would reduce resistance to the circulation.

Digitalis at the same time that it increases the force of cardiac systole, produces arterial contraction, hence resistance. And, therefore, in many of our cases, except where there is careful adaptation of dose, is a factor in causing ventricular dilatation, which may eventually lead to cardiac degeneration.

This question of dose is a matter of great importance, and as an effect is gotten from its use, the quantity given should be graduated so as to maintain a uniform effect. That is to say, if when we first employ the drug in case of weak heart, a given quantity is required to accomplish the effect, but that improved circulation, owing to its action, improved absorption occurs *pari pasu*, the effect is increased, hence a smaller dose is needed to maintain the effect which was originally obtained, and by thus graduating our dose, adapting the quantity to the effect, we are able to maintain a more uniform condition, and postpone the time when failure to respond occurs in cases of organic condition where cardiac support must be maintained for an indefinite time.

I am constantly impressed with the lack of wisdom in cases of cardiac disease of giving such an agent as digitalis in considerable quantities for walking patients, and allowing them to go about while taking these large doses, for a quantity which is adequate to maintain free and proper heart action while the patient is active is in excess when the patient is quiet.

The point which I wish to make is this: that with this drug the least possible amount should be used to accomplish the effect desired, and this quantity should be still further modified as the treatment goes on.

Another word of protest I wish to make with regard to the use of caffeine. It is not unusual that this remedy is prescribed for more or less continued use in cardiac weakness. Caffeine increases cardiac force by reason of its action upon the central nervous system. Hence is

what may be termed an exhaustive or an exhausting agent. As a remedy to tide us over a crisis until some other agent may be employed which will increase power by reason of its influence upon the heart muscle, cardiac ganglia, and improve nervous control, it is exceedingly valuable, and undoubtedly when so employed will enable us to save many lives, but as an agent to rely upon as a cardiac support, it is, in my opinion, harmful, and a heart which has been supported by the use of this agent for a considerable time is less susceptible to stimulation from other agents, and hastens the time when we arrive at a condition graphically described as physiological bankruptcy.

A combination of several of the cardiac stimulants is frequently of decided advantage, enabling us, in this way, to use smaller quantities of a given drug with satisfactory results. Yet in cardiac disease simplicity in our therapeutics is of undoubted advantage. By combining such agents as digitalis, strophanthus, cactus, and preparations of nux vomica, we are often able to do what we have alluded to, the use of cactus, to my mind, being especially advantageous in cases of excessive heart action, tachycardia, etc., which we frequently meet. Yet with these combinations, a careful watch should be maintained of the effect obtained, and a graduation and modification of our dosage followed. By reason of the improved heart force minus arterial resistance, these remedies with digitalis are particularly advantageous. Sparteine, as a cardiac stimulant, or perhaps better as a heart tonic, is, to my mind, a useful agent, more especially where there is a rhythmical disturbance. As a pure heart tonic in many of our acute diseases where there is failing heart, its use has been very satisfactory. This seems not to have been the experience of many of our best observers. The suspicion arises in my mind that their failure to get effects from it may possibly have been due to their not using it in sufficient doses. Rarely do I employ less than one-fourth grain, and when occasion requires, do not hesitate to give it in considerably larger doses, even up to one or two grains, and from quite an extended use of it in weak heart my results have been very satisfactory.

One other thought in these cases i importance of attention to elimin Many a heart staggers and is embarr in its action by the burden of waste v it is carrying about. The use of a su cathartic is, in many an instance, a ceedingly beneficial cardiac tonic, by son of its removal of the load wh weak heart has to maintain.

172 Clinton Street.

[Written for the MEDICAL BRIEF.]

Remarks on Treatment of Fibr

BY ROBERT HAWTHORNE WYLIE, M.

Professor of Gynecology in the New York clinic; Gynecologist to the Polyclinic pital; Attending Gynecologist to the Patient Department Bellevue Hos Assistant Gynecologist to Bellevue pital; Surgeon to the Hackensack Hos Fellow of the Academy of Medicin New York City.

Fibroids *per se* rarely give actual unless they are wedged in the pelvis cause pain by pressure, or, unless intra-uterine, they are being squeeze or, unless acting more or less like a eign body in the abdomen, they ca certain amount of peritonitis, by me ical irritation. It is safe to say, there that when a fibroid is apparently g pain that it is complicated by salpin or is degenerating.

Hemorrhage as a symptom of fib has been over-rated, as salpingitis ovaritis, with an accompanying endo ritis, much more frequently causes orrhagia and metrorrhagia. You have very large fibroids, which giv increased flow unless they encroach the mucous membrane of the uterus cause hypertrophy of the same.

The method of treatment of fibroid been an evolution. When I began to tice medicine they were treated with ergot, electricity, and the curette, to them over the menopause. Hegar's ation was done to cause an arti menopause. I never saw any real b from ergot in stopping hemorrhag decreasing the tumor.

I went to Paris to see Apostoli, was the great apostle of electricity, after I left Bellevue Hospital. I wa that enthusiastic man for a short

bought his instruments, and on coming home gave electricity a fair trial. I found it a great means for impressing patients, and I had a number of patients who believed it was curing them while I used it, but they were mistaken.

I wish to give Apostoli credit for measuring his electricity, and trying to formulate the method of its use. Where sufficient amperes were used, the intrauterine pole, or the pole thrust into the tumor, would destroy tissue, and, therefore, blood vessels.

It tended to stop hemorrhage, but it was, at best, of little use, and I never could decide that the so-called electrolytic action did any good. We must remember that vascular fibroids, and especially fibromas, naturally vary considerably in size. Electricity was a great means of fooling many patients and doctors.

The sharp curette was and is still a good means of stopping hemorrhage when you can reach the bleeding mucous membrane in cases where radical means are not allowed. Hegar's operation served a good purpose in bringing on the menopause, and also in destroying the ovarian artery, but it properly fell rapidly into disuse as the operation for complete removal was simplified, because we know that the menopause in some cases is not followed by atrophy of the tumor, but that they are prone to degeneration of a more or less malignant type, and may grow rapidly. Even where the degeneration is not malignant, they may calcify and cause pain and discomfort in a mechanical way.

As intimated, it is not necessary to operate on every patient who has a fibroid in order to save her life, but the operation for removal of the fibroids, and leaving the uterus in child-bearing condition, or removing the whole organ, are so simplified and have so little mortality that few patients ought to be allowed to suffer the discomforts caused by fibroids.

31 West Thirty-Fifth Street.

I cheerfully enclose one dollar for continuance of the BRIEF's visits to my office. I have profited much by the perusal of this excellent and scholarly journal.—J. G. A. DAVIES, M. D., Canaseraga, N. Y.

[Written for the MEDICAL BRIEF.]

Curettage of the Uterus.

BY J. M. HUNDLEY, M. D.,

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There is no operation in gynecology so frequently done as curettage of the uterus. It has now taken the place in great part of the older method of dealing with pelvic diseases. The older method I refer to is the application of iodine, and the use of boro-glyceride tampons. This method was the routine practice some years back. It was resorted to for the relief of every conceivable ailment which might arise from disease of the pelvic organs in women. As it was with the older method of iodine and tampons, so it is to-day in the use of the curette; both have their limitations.

In properly selected cases the curette in skillful hands is a valuable instrument, but the operation of curettage is not devoid of danger. Even in skillful hands, puncture of the uterus is every now and then reported. I myself have had the mishap twice with no serious results.

My object in this short paper is not to point out the class of cases which call for, or do not call for, curettage. What I wish to emphasize is that the indications calling for the operation should be definite and clear before the operation is undertaken. It appears to me that the average doctor is somewhat hazy in his ideas as to the indications demanding the operation. This is most likely due to the faulty teaching methods of a few years ago. It is only recently that the schools have recognized the necessity of a closer relationship between the student and patient. It is preposterous to expect a student who has had only didactic teaching to be competent to make an accurate diagnosis in any branch of medicine, and especially is this true in gynecology, and so this lack of accuracy in the treatment of a given case is not so much the fault of the man as it is of the teaching methods some years ago. What is incumbent upon us as teachers is to emphasize the value of

painstaking history recording and the necessity to properly interpret what is felt by the examining finger in making a bimanual examination of the pelvic organs, and that the history of the case is of the greatest value in deciding for or against such a simple operation as curettage.

Within the past week I have had two cases at my clinic emphasizing the points set forth. The first case was a white woman, thirty-nine, single; she began to menstruate at fifteen; suffered slight pain at each period until she was twenty-nine years old. At that time the pain began to increase in severity until now it is unbearable. She had undergone medical treatment of one kind and another without benefit, the only thing that brought relief was morphia.

Within a year previous to her entrance in the hospital she had been dilated and curetted twice without benefit. During the menstrual period she was never free from pain. Three small interstitial fibroids were removed from the uterus. The fibroids were the cause of the pain. Curettage could not possibly cure such a condition.

The second case is more interesting: This woman was forty-three years old, the mother of two children, the youngest child fourteen years of age. No miscarriages. Began to menstruate at thirteen; flow lasted two days. Two or three years ago the flow began to last six days, and became freer. In May of this year it lasted ten days; in August, the entire month with no let up. From August to November she had irregular uterine hemorrhages. Such was her condition when I saw her.

After obtaining a careful history of the case, the pelvic organs were examined. The vaginal outlet was greatly relaxed; the veins in each vaginal sulcus were visible and varicosed. The uterus was retroflexed; cervix normal, tubes and ovaries normal. No disease of heart, lungs or kidneys. Curettage was a proper procedure in this case. From scrapings obtained, malignant disease of the uterus was excluded. It could not have been done in any other way. But that was not sufficient in such a case to put a stop to the hemorrhage. The relaxed outlet should have been repaired, and the uterus replaced in its normal position and m tained there, preferably by ventral sus sion. The above operations were don me. On opening the abdomen, large p inent veins were seen crossing over bladder, and the veins of the broad ment were greatly varicosed.

My previous experience with such c warrants me in the belief that this will be permanently relieved of the ute hemorrhage from the above operati Curettage alone would not have cured

My contention is that, however sir the work attempted, be it curettag not, if the work is to be efficient and plete, the man doing it must be cap and have a clear conception of the cas hand.

It is foolish to curette a uterus fo lief of pain at the menstrual period, o the arrest of uterine hemorrhage, wit first ascertaining the cause of the pai hemorrhage.

1009 Cathedral Street.

[Written for the MEDICAL BRIEF.]

The Good and Bad Effects of Thought.

BY MARC RAY HUGHES, M. D.,

Professor of Mental and Nervous Dise Barnes University (Medical Department St. Louis, Mo.

Speaking of the changes of chara wrought by thought, it is interestin note the changes of expression of viduals one meets on the street and o public places. The face, as has often said, "is the open door of the soul." can almost read the soul by the fa expressions. If we can not read verba the thoughts in one's mind, we can least read the trend, and where we k the trend of percepts, we can gener determine the thoughts therein, especi if we are acquainted with the person, know from constant observation their dividuality, character and idiosyncra Even as the marks of identity are sh by the lines on the face of the crimi so are the thoughts, both good and shown on the face of the infant or adu good or bad, vicious or humane.

One might say, after reading the ab "that no infants have vicious or

thoughts," which is quite a mistaken idea, for viciousness is inborn and inherited, the same as any other condition to which humanity might fall heir.

Children of criminal parentage are bound to inherit the vicious character of their ancestors. It may never be handed down to them as a direct inheritance, but may follow the law of atavic descent. Although viciousness and crime is inborn in the criminal, its outbreak may be avoided if properly handled, and the mind schooled in such a way as to reduce the tendency of criminal acts to a minimum.

By changing the thought you change the character and the lines of the face. This, of course, is easier to accomplish in the young than those of more mature age, where only the tendency to criminality is present, and not where crime has already asserted itself in the individual's mechanism.

In noticing the growth and development of children, it is interesting to watch particularly those who have the vicious temperament and the ones who have the humane. We notice, as we pass along the street or the playground of a children's school how easy it is to discern which child has the proper home surroundings, for their rearing shows foremost in their dispositions. From these children we pick out the rising generation that will be of service or a detriment to the community. Not only do we stamp them individuals of inborn tendency to degeneracy or viciousness, for viciousness is a form of degeneracy by their actions, but by the lines of inheritance, which is plainly written on their faces, and is the accompaniment which marches hand in hand with the vicious acts of childhood life.

No doubt there are many who will disagree with me when I say that children of vicious temperament whose facial lines show their parentage, may be completely changed for better or worse by their environment. Not only do their dispositions change, but the lines that give expression to the face. If the environment be good, the change of expression will be pleasing, and *vice versa*. It is only necessary for the observer to visit the rescue homes and reform schools to be convinced that what I have said in the foregoing lines is quite true. In the reform school we see boys whose ages have a wide range. Upon the faces of the younger boys we find well-marked lines of degeneracy, according to their class, and as we pass on in our examination to the intermediate and on to the upper classes we find gradually as we ascend a diminution of the lines that mark degeneracy in the young and adolescent stage.

I merely mention the foregoing remarks in passing to show that environment is conducive to thought, good and bad begetting their kind, which is the law of Nature. We notice people who have a careworn expression, whose faces portray a life of trouble, and whose environment is one of gloom, but the lines upon the face that tells us their life's history and sorrows are the thoughts of unhappiness that hold them victims and worshippers at the shrine of discontent.

These people go, day after day, brooding over a trouble (real or imaginary) until the lines of the face that once denoted a cheerful disposition, or one that could at least be made happy, begin to diminish, and finally disappear, and lines of opposite character take their place, becoming fixed lines, and destroying the features of a cheerful countenance, which is the background or foundation of good looks.

You then question whether that is so after having seen the "sad sweet faces" in many walks of life. The secret is this: those "sad sweet faces" are ones whose lines were formerly the accompaniment of a happy life and cheerful disposition upon whom lines of sorrow or sadness were just encroaching, or else it is the other way, a face with the accompanying lines of a life of sadness with a new life of happiness beginning to dawn upon the horizon, and bringing with it or changing the old lines of unhappiness to ones of happiness and content.

The effect thought has upon the lines of the face, as I have already mentioned, is largely dependent upon environment, and it is useless to urge people to make their own surroundings, for that is one of the processes of Nature, and we are put there by the hand of destiny; however, it is quite in our power to aid Nature in bettering our environment. We

can form the habit of cultivating and courting a cheerful disposition by using our natural powers of concentration upon the brighter things in life. Of course, it is a gradual process, like all habits, but finally you will notice in your own face faint lines of a different character than those you noticed before. Of course, they are very faint at first, but soon they become pronounced enough to be noticed by outsiders.

Naturally the cultivation of a pessimistic disposition will show in the face the same as the cultivation of the optimistic. So bear in mind that, no matter which disposition you have, you can change it. Also bear in mind the fact that if you have what we would call the ordinary disposition, neither pessimistic nor optimistic, and the lines of the face are not as becoming as they might be, thought along certain lines will change them. Then remember your face is a mirror, and a reflector of thoughts.

3872 Washington Boulevard.

[Written for the MEDICAL BRIEF.]

Signs and Symptoms of Gall-Stones.

BY MACK ROGERS, M. D.,

Professor of Anatomy and Clinical Surgery in the Birmingham Medical College; Surgeon to the Hillman Hospital; Member of the Jefferson County Medical Society, of the Medical Association of Alabama, of the American Medical Association and of the Southern Surgical and Gynecological Association. Birmingham, Ala.

The disease known as gall-stones is one of the most frequent of the biliary apparatus. It is assumed that twenty-five per cent of all persons reaching forty years of age develop gall-stones in some form. The condition may be acute or chronic, or it may be acute, superadded to the chronic form. The symptoms are more or less severe, but they are often present without giving rise to any trouble. In an acute attack we find the patient suffering from excruciating pain, referred to the region of the gall bladder. It comes on suddenly, and is usually paroxysmal in type, and radiates to the epigastrium or back to the shoulder blades. This pain does not yield readily to moist heat or internal medication. It may continue for a few minutes only or for several days in spite of opiates. This pain is intense while t stone is pasing from the gall bladder the bowel, and when it escapes the pa is suddenly relieved. Should this pa continue and jaundice ensue, the stone evidently obstructing the common du These attacks are known as hepatic col Pressure from the gall bladder excites aggravates the pain, and produces a na sea, and vomiting is nearly always pr ent in this condition. During a paroxys of pain and nausea, there is usually pr ent profound perspiration, and if co tinued long produces prostration. T pulse rate is usually lowered to fifty a even forty per minute. The temperatu rarely rises above 102° F.

These symptoms may last for a sho time only, and pass off quickly, or ma continue for several days, becoming le and less marked until they finally termi ate in the chronic condition.

I lay more stress on jaundice followi these attacks than most writers on th subject, for I do not believe that we ca have much trouble with the biliary a paratus for any length of time witho some degree of jaundice. The history previous attacks is of more or less di turbance of the gastric intestinal appa atus, such as indigestion, constipation wi chalky colored stools, or even the pre ence of gall-stones themselves. Age, se and physical condition play importa parts. Gall-stones are most frequent b tween forty and sixty years of age. F males are three times more affected tha males, and of these ninety per cent ha borne children. They are usually fou in persons of a robust, full habit, and a rarely found in thin, delicate and nervou persons.

I wish to emphasize the importance diligence and care in these special case in order that we may be able to make positive diagnosis. This is not alway easy, especially so in the first attack th lasts for a short time only and passes o without leaving any jaundice. Howeve the diagnosis can be based on sudden i tense pain, tenderness and rigidity, loca ized over the gall-bladder, accompanied b nausea, vomiting, perspiration, and ofte jaundice, clay colored stools containi gall-stones, together with a distended ga bladder, or a mass in that region. The

signs and symptoms grouped together in a large fleshy person over forty years of age, and especially in a woman that has borne children, will justify a diagnosis of gall-stones.

I have dwelt at length on the signs and symptoms of this condition because I realize how important a diagnosis is in the treatment of these cases. When we feel confident we have gall-stones that are giving trouble of a serious character, we should not hesitate to recommend surgical intervention. This is especially true, since there are no known medicinal remedies that materially affect this condition. When we have made a diagnosis of a condition demanding operation, we should not waste time in delay, but state the condition frankly to the patient or his friends, and in most instances they are amenable to reason. This is especially true with the present prognosis we have to offer them. In the hands of competent, experienced surgeons, I regard this as one of the safest operations in the abdominal cavity. The mortality in all non-malignant cases averages less than one per cent.

212 North Twentieth Street.

[Written for the MEDICAL BRIEF.]

Cure of the Drink Habit by Hypno-Suggestion.

BY JOHN D. QUACKENBOS, M. D.,
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The drink habit is singularly amenable to treatment by hypno-suggestion. In fact, some of the popular cures are in reality mere suggestion cures, there being no specific virtues in the drugs administered. Dipsomaniacs, as a rule, are easy subjects, in that they yield readily to hypnotic influence, and accept unconditionally the suggestions communicated by the operator.

Regular drunkards should be treated just before the close of the cycle of sobriety. Regularly recurring debauches have periods of varying length, the longest in my experience being three days, and I have satisfied myself that in most instances a relationship exists between the abuse of tobacco and the oncoming of the irresistible thirst, the depressing effects of the nicotine instinctively suggesting resort to the antidote.

Periodic drink storms are usually forecast by significant symptoms well known to the family and friends of the victim—irritability of temper, unreasonable suspicion, so described "cranky spells," abnormal restlessness, unaccountable depression.

Immediately upon the appearance of these symptoms, the patient should be treated by suggestion. Many such patients recognize their danger, and sincerely wish to be cured. They are hypnotized, and assured that alcohol in any form will disgust them, that they can not take it, that they can not carry the containing glass to their lips; the society of low companions is tabooed, the pleasures associated with drink and the glamor of the bar room are pictured as meretricious; the physical, mental, moral and financial bankruptcy that accompanies dipsomania is held before the view of the sleeper, and he is forced to the conviction that begotten of this apprehension there has come into his soul an abhorrence for drink and all that it stands for.

The supersonal mind is then directed to the vocation or avocation, or both, as circumstances suggest, and a career of wholesome activities and satisfactory successes is imaged as the legitimate consequence of the abandonment of the compromising habit.

A *sine qua non* of success is the consent of the patient, an honest desire on his part to reform. Habitual drunkards do not, as a rule, wish to be cured, and about ninety per cent of them, women as well as men, resent the approaches of those who desire to save them. Sometimes when no other form of appeal is effective, they may be frightened into a realization of the fact that constant use of alcoholic stimulants will result in organic changes in the liver, kidneys and brain, or by lowering the general powers of resistance, and at the same time irritating the bronchial tubes and the lungs, through which the alcohol is in part elim-

inated, markedly predispose to pneumonia and tubercular consumption.

When apprised of their enervated mental condition they honestly desire to cure the habit, but can not of themselves; the craving simulates a mania. Under these circumstances it is comparatively easy to persuade the patient to accept treatment, and a rescue may be effected in a week's time.

These views are based upon an experience with some one hundred cases extending over a period of three years. Of these cases, eighty per cent have been permanently cured. The success of the treatment bears a distinct relation to the amount of injury already inflicted upon the brain cells, and the accompanying mental and moral blight.

Its advantage consists in the rapidity of restoration to self-control without the necessity for effort, without the physical discomfort or suffering that usually attends the abandonment of a habit, most conspicuously without the breaking of family ties and the enforced absence from professional or business duties that are implied in sanitarium treatment.

331 West Twenty-Eighth Street.

[Written for the MEDICAL BRIEF.]

The Treatment of Cancer.

BY THOMAS BASSETT KEYES, M. D.,

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In the annals of *Gynecology and Pediatry*, June, 1901, Vol. XIV, No. 9, Dr. J. Collins Warren, Professor of Surgery in Harvard University, says regarding cancer, that "In rare cases the degenerative processes, for a time at least, seem to exceed the processes of growth in cancer, and under these circumstances we observe a tendency to spontaneous cure. Such a case occurred recently at the Middlesex Hospital, London. A patient over eighty years of age was admitted to the cancer ward with cancer of the breast, recurring after operation. At the end of a year, although there had been no treatment of any kind, the nodules had disappeared, and she was apparently well. This tendency should be taken into count in estimating the value of drug supposed to have an influence cancer."

Under the heading "Pith of Current erature," *New York Medical Jou* August 29, 1903, page 438, is the fol ing: "*Cancer.*—Bell does not believe cancer is a microbic disease. The elem of cancer are present, according the author, in every one. They are mal cells, which, under the influenc metabolism, undergo malignant proli tion. In the early stages cancer ca cured."

As a predisposing cause he has tioned the following: "The vitiated dition of the blood by prostrating the siological activity of the various or and cellular structures, and paraly the *vis medicatrix naturæ* affords e facility for the new growth to estab its identity, and increase its area at expense of its environment. As to cause of cancer, study seems to poi out as a disease of trophic nerve dist ance. How then would suggestion i ence the operative surgical wound cancer site to healthy nutrition growth?"

In the beginning of these pape pointed out, and it is an absolute that wounds will heal much quicker w suggestion to that effect is made, numerous experiments in the treatm of chronic cases have been made by o observers, to the effect that these s which have resisted all other form treatment have yielded and healed thr the effects of suggestion.

Then, if cancer is a disease of tro nerve disturbance, either in weake the parts or promoting cell growth, only reasonable and rational to use gestion to promote healthy healing o wound, to increase nutrition, and a hea physiological condition, for as has conclusively shown by suggestion, we to a greater or less extent, influence phic nerve disturbances in the wa promoting greater nutrition to part the body, with these well-known fact view, after removal of the cancer.

I use suggestion to prevent its re to influence nutrition, and to restore parts to a healthy condition, but i

case would I attempt to cure cancer by suggestion alone. I do not wish to be understood as saying that all cases which have life that are afflicted with cancer can be cured, but I do say, and firmly believe, that we will obtain better results, and cure a much larger percentage of our cases, by using suggestion during and after surgical operation, and that in early cases and in those where the glands have not become greatly involved we will cure cancer. It will not return, for by suggestion we have brought into use the natural forces which the system possesses, and which enable it to counteract the causes of disease.

The body, in order to preserve its integrity, has at its disposal powers which have not been fully investigated, but the more the knowledge of these powers are inquired into the more does one become convinced of the fitness for the particular object for which they exist.

Some seven years ago, in *Surgery, Medicine and Psychology*, I published the following article:

"THE TREATMENT FOR CANCER—SURGERY, THEN SUGGESTION.

"Cancer causes more than four times as many deaths as typhoid fever, but while medical officers of health devote so much attention to their reports of the latter, they give little notice to the former. The continuously progressive increase in the cancer mortality has now been going on for more than a century.

"Having carefully reviewed the entire literature, as listed in the catalogue of the Surgeon-General's office, and the Index Medicus, in all some several hundred articles, I found that the concensus of opinion is, as everybody knows, that cancer can not be cured either by medical treatment or surgical operation, and as to whether cancer can best be treated by medical and local treatment or by surgical operation has received a large share of the physician's attention, and here we have a difference of opinion. Some claim that life is prolonged to a greater extent, and that better results are obtained by medical treatments and the employment of caustics and escharotics, and that the operative treatment shortens life. Others, the surgeons, claim that operative treatment is a more certain palliative; that it relieves the patient to a greater extent, and for a longer period of time, and that if an early operation is performed, a permanent cure will sometimes result. Early operation should be the watchword of every physician.

"If cancer is left to itself, says Jackson, it requires about seventeen months to destroy life, if of the cervix of the uterus, and if of the body, thirty one months. Sims gives the average at eighteen months. Pawlik states that, according to Lebert and West, the average duration from the beginning of the disease is sixteen or seventeen months.

"As to the treatment of uterine cancer, which is the most common, we have three methods, viz.: (1) Chemical or actual cauterization; (2) Amputation or excision of the diseased structure; (3) Extirpation of the entire uterus, and as much of the surrounding tissue and lymphatic glands as possible. Surgical technique has now so far advanced that the latter method is preferable, and should be carried out in properly selected cases. In order to do this, an early diagnosis must be made. This, I am aware, is not always possible, as the early life of cancer is insidious, usually unobservable, and symptomless, and the disease has often become too far advanced before the physician is consulted, for the early treatment by excision, and even in early operation without the aid of suggestion results are discouraging. Fritsch, one of our best operators, has given us the final results of sixty cases, of total extirpation for cancer of the uterus, and he has been honest enough to tell us that at the end of three years he had only two patients alive. Ferrier has given us the results of eighteen operations of total extirpation for cancer of the uterus, and at the end of two years only four patients were alive. The statistics of this day are generally in accord with these, though some are more encouraging as to the primary mortality; what of the remote results? But there is a cure; it is found in properly applied suggestive treatment. After the removal of the cancer we may prevent its return, and promote health.

"Suggestive hypnotism has been recommended as a cure for cancer by a number

of observers. It has been recommended as a palliative by the more conservative, for by suggestion, though there is a number of recorded cases, we will seldom succeed in doing more than relieve the many distressing symptoms, particularly of the digestive and urinary systems in cancer of the uterus, and to relieve pain. In the proper state of hypnosis certain music exercises certain effects upon the nervous organization, and this promotes the effects of suggestion.

"As to the cause of cancer, study has only shown that it is a change of tissue, and it is a trite saying that carcinoma is only a return to the fetal state. It is thus probably due more to failure of the trophic nerves and nutritive conditions than to anything else. From the fact that disease is incompatible with health, it naturally follows that where disease has taken possession of a structure, there must have previously existed an enfeebled condition of the parts affected, *i. e.*, some irritation, which exhausts the ganglionic system from supplying the proper amount of nerve force. Cancer occurs usually in those organs which have passed out of usefulness, as of the uterus at menopause.

"When one observes the perfect automassage that is produced in the hypnotized subject when certain music is played, he will readily appreciate how this will increase the activity of the nerves, tissues, etc., and thus the nutrition of the parts, and also the remarkable aid it lends to the suggestion. And this leads us back to Alsciebiades of Prussia, a man of great natural ability, who in the first century before Christ taught that the body was composed of atoms and corpuscles, and that health arose in consequence of harmony between the atoms and corpuscles, and that disease was the result of a lack of harmony or discord. This is food for thought.

"With suitable music, parts of the body of the hypnotized patient are harmonized. Suggestions are made to the patient to tune himself to the music, to tune every part and organ to the music, and to follow the suggestions.

"This article is not, however, intended to depreciate the operative treatment. In all cases where the disease has not too far advanced, we recommend total extirpation of the part with the surround glands. Suggestive treatment sho then be carried out, with a view of venting the return of the disease. By gestion the wound from the operat may also be made to heal much better firmer and in a much shorter time.

"Thus cancer can be cured, and it with this idea that I first expressed motto as 'Surgery, then Suggestion' in article in the *Char. Medical Journal*, ruary, 1897, entitled 'Surgery, then Sug tion, Especially for Malignant Growth

Now, seven years after the above arti I wish to repeat, Thus cancer can cured.

[Written for the MEDICAL BRIEF.]

Abdominal Section for Adheren Retroflexion of the Uterus.

BY EGBERT H. GRANDIN, M. D.,

Consulting Gynecologist to the French Hosp Gynecologist to Columbus Hospital; Fe of the American Gynecological Soci Fellow of the Academy of Medicine; M ber of the Harvard Medical Society, S Medical Society, Medical Association Greater New York; Ex-President of York County Medical Society; Author Text-Book on Practical Obstetrics, etc. York City.

In considering this topic, it is essent above all, to bear in mind the cau factor of the adhesion of the uterus ba ward. We operate primarily to reli symptoms, and the symptoms are alone dependent on the unnatural fi position of the uterus, but chiefly mainly on the complications. The cau factor is a pelvic peritonitis. Back this, and responsible for it, is the entra of irritating material into the pel This material emanates from tube, fi ovary, from vermiform appendix, poss through lymphatics or veins. No ma whence the outcome of the irritating terial, the result is the same—the glue of the uterus downward and backwa the glueing of tubes and ovaries to the or backward or anteriorly, these org being distorted in every imaginable v Where the causal factor emanates ori ally from the appendix, and this is r tively common, we find this organ ad ent to the uterus or tube or ovary. I ther still, in no mean proportion of

stances, omentum, sigmoid flexure, cecum, even small intestines, are adherent with or to the uterus and appendages.

The symptomatology then of adherent retroflexion is due, in part, to the abnormal position of the uterus, and in part to the complicating or causal factors. The total result of the abnormal position of the uterus and of these distortions and adhesions and disease of adjacent and remote organs, is interference with the pelvic circulation. The uterus becomes enlarged and succulent and heavy, the broad ligaments varicose, the function of bladder and of rectum is interfered with.

We as gynecologists are called on first (and this is the proper function of the gynecologist) to tell by touch just what is present, and then to apply the measure which will best relieve the symptoms. This is where the gynecologist becomes a surgeon. Now those of us who have studied clinically the diseases of women for many years, who have passed through the cycles of multiform treatment, realize the limitations of our sense of touch, and are unwilling in a given case to state definitely just how much lesion is associated with the adherent retroflexed uterus. Our surgical instinct then tells us that where the symptomatology is urgent enough to call for something more than the old-fashioned gynecological tinkering (such as the tampon), we must bring to the aid of touch the sense of sight, and thus arises the justification for abdominal section. The abdomen having been opened, we break up adhesions, and if, in so doing, we injure intestine, we repair the damage. The abdomen open, we can judge with fair exactitude how much work must be done on tubes and ovaries. We may remove the appendix if need be.

Finally, and this is important, we may insure symptomatic cure by lifting the uterus upwards from its sagging situation, and maintain it there, thus, and thus only, restoring, as far as this may be, the equilibrium of the uterine and peri-uterine circulation.

Surgical work of this type is sentient work, because the sight aids touch; to attempt measures such as the above through the vagina is blind work, is imperfect work, is far more dangerous work. I have attempted this work through the posterior fornix, and have broken up adhesions, and have pulled down tubes and ovaries, and have packed in gauze (causing new adhesions to form in so doing), and have injured intestine (unknowingly, of course), and have left in pus pockets, unfortunately, in consequence, being obliged later to resort to abdominal section to repair the lesion made by me, or to break up the new adhesions, and certainly to lift the uterus upward, and to maintain it there.

This statement is far from an extreme one, even though not applicable to every case, but it may be taken as a type. Indeed, as gynecologists become more surgical, I find that the vaginal incision is rarely made except for diagnosis or to evacuate accumulations of pus.

As for attempting this class of surgery through the anterior fornix, I have never deemed it logical. Besides the extensive mutilation of the vagina requisite through such an incision, the work is arduous and is indirect, and is still more blind than that through the posterior fornix. As well reach over a high fence to pick our object from the ground when the hand may reach it more readily from under the fence, for this, putting it in a homely way, is that which is attempted by those who advocate this method of treatment. The uterus is adherent posteriorly, the appendages are glued—the Lord only knows where— the appendix may be adherent to the uterus, tubes or ovaries, other complications may exist, and yet the operator makes a sagittal incision, and next a longitudinal incision, and pushes the bladder away (to which, for all he may know, is attached a pyosalpinx which he may rupture), and then he places his hand over the misplaced fundus of the uterus, and endeavors to drag it down into the vagina together with, often, the diseased tubes and ovaries or (possibly) appendix. This, pardon the term, is not surgery; it is butchery, of which a butcher would be ashamed. Let us face, as gynecological surgeons, the alternatives. I open the abdomen, and sight assists touch. My patient is subjected to a problematic hernia (which, by the way, should it occur, I can heal), and yet I am able to perform sentient, that is to say, knowing work on the woman who has placed her welfare in my

care. On the other hand, I operate through the vagina, a region which can not be sterilized. I open by posterior incision, and I use the exaggerated Trendelenburg posture, and (unforeseen by me) an ovary ruptures, and the pus (most virulent) invades the general peritoneal cavity. I have injured the woman, not helped her. If this does not happen, I pack in gauze, and this causes new adhesions to take the place of those I have liberated. This is not surgery.

Suppose I open by the anterior incision. Aside from the elaborate mutilation of the vagina, and the difficulty of performing sentient (that is to say surgical) work, I necessarily injure the vagina. I cause the vagina to become adhesive to the anterior lower uterine segment, and should it be possible thereafter for the woman to conceive, dystocia is bound to ensue at delivery (thus imperiling two lives).

Finally, neither by posterior section nor by anterior section can the misplaced uterus be lifted upward where, on the line of my argument, it must be, if we aim at symptomatic cure.

Space will not permit my dwelling on the untoward effect on kidneys and lungs of prolonged anesthesia, a sequence which rapid work, and this is yielded by the abdominal route, best avoids.

It has been my endeavor to impress the old adage that he "who runs may read," that is to say, that he who seeks the most direct route to secure a certain result is most likely to win.

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[Written for the MEDICAL BRIEF.]

Necessity of Physical Development.

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Every thinking person is bound to admit that physical development has not kept pace with mental progress. Too much attention has been devoted to the mind, and too little to its temple, the body. Exercise depends largely upon occupation —in other words, those whose occupations favor exercise are fortunate, those with sedentary occupations receive little or exercise. This neglect of the body beg at an early age. The mother consid the immediate wants of the inf Fashion, dress, food, receive her car consideration, and the child grows up fitted to resist heat or cold, and or with tastes and cravings which lay foundation for future ill health. Inst of training the little ones in walking running, they are trundled about in riages, and carefully protected from physical exertion. In school this pro is usually continued. Great demand made upon the mental powers of the ch while the body is left to shift for its and very little time is devoted to pro exercise and gymnastic work. The cro ing of school children in unventila rooms, and compelling them to sit still hours at a time, can not but have its fluence.

Parents and educators are equally sponsible for the precociousness of m children, and the mental drill begins l before the child is prepared for s work. It is a well known fact that physically strong child will soon outst the "precocious" one in his studies, e though he may enter school some two three years later than the latter. In higher institutions of learning, the ho of study are so long that but little rema for systematic exercise.

Systematic and scientific gymnastics vate the body to its proper tone, invig ates the lungs, hardens the muscles, se the blood coursing through the blood sels, and sustains the fire of youth. S tematic training physically is the o means of maintaining a perfect equip between mind and body, an equip which was so beautifully illustrated in lives of the ancient Greeks.

Weak action of the heart, irritability the nervous system, impaired digest rheumatism, consumption, dizziness, spi curvatures, and a host of other afflicti are the result of sedentary habits, with sufficient exercise and weak muscular velopment.

While it is true that the average du tion of human life is higher at the p ent age than formerly, it is by no me attributable to our mode of living, bu simply due to the progress in medic

and surgery which enables us to save many lives which formerly would have perished.

In our times, many a feeble life is maintained from year to year merely to bequeath, in many instances, this impaired constitution to children and grandchildren, and thus the gradual deterioration of the human race goes on.

To counteract these evils, every physician should exert his influence to the utmost for the introduction of regular gymnastics among all classes of people; they should join forces with enlightened teachers in laboring for the establishment of gymnasiums. It should be remembered that all physical training, be it gymnastics, horseback riding, swimming, rowing, or fencing, are also a training of the central nervous system of the brain and the spinal cord. Even the power of memory is augmented by systematic physical exercise. Together with gymnastics, massage should also be practised, in order to keep the body strong and healthy. History teaches us that since the time of Homer and Hippocrates, massage was advocated by the foremost men of Greece, philosophers, poets and historians. Among the Grecian women, massage was resorted to for the purpose of increasing the beauty of the skin and figure.

But beyond the healing of various affections, massage is also a great preventative of disease, as most diseases spring from disturbances of circulation and functional disorders, which can readily be forestalled by systematic hygienic massage. In orthopedic practice, massage is simply indispensable. Physical exercise, therefore, combined with massage; are powerful factors in the destruction and prevention of serious diseases, which are the natural product of our strenuous mode of life.

While the ancient Greeks and Romans should stand as our models, they should also be to us a warning example. In Greece, as well as in Rome, gymnastic sports formed the basis of mental and physical, personal and general welfare, and the glorious success they attained gave proof of the soundness and correctness of their views. However, as soon as the Romans grew indolent, leaving their physical sports to professionals, their ultimate decline and downfall was sealed.

It is true that gymnastics, massage nor physical sports will eradicate all the mental and physical troubles which flesh is heir to, but they will add materially to the strengthening and beautifying of humanity, and endowing it with the power of resistance.

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[Written for the MEDICAL BRIEF.]

Some Remarks on Æstivo-Autumnal Malarial Fever.

BY CHAS. A. MOHR, M. D.,
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The occurrence of æstivo-autumnal fever in the latter part of the summer and early in the fall months offers a puzzling problem to those inexperienced with the various malarial types. This form of malaria is responsible for frequent mistakes in diagnosis, being sometimes mistaken for typhoid fever, or other infections characterized by fever of a more or less intermittent type. A prompt and positive diagnosis is imperative for successful treatment. Periodicity and the quinine test alone will not always lead to positive results. Frequently, however, the microscope test and the finding of a malarial hematozoa makes positive the diagnosis, and leaves nothing to be desired. However, when the latter is negative we may still be left in doubt.

The finding of the malarial organism in the æstivo-autumnal form is not as easily accomplished as in the other forms of malaria, since the peripheral blood seems to be entirely free from the organism, and unless oft repeated examinations are made the existence of these bodies are overlooked. The writer believes that positive results can be more frequently obtained if bedside blood examinations were more frequently made, removing thereby all doubt as to the condition, and insure correct treatment from the beginning.

While the sovereign treatment of malaria is conceded to be quinine, the mode of administration and dosage in cases of æstivo-autumnal fever must be different from those followed in other types, and a proper classification of the fever is abso-

lutely essential to successful treatment, and efforts to cure this type of malarial fever by the same means as in other summer types will be met with failure. But should it be a case in which the parasite has not been found, and the ordinary use of quinine followed by no results, the temptation will be strong to induce the physician to believe that it is a case of malaria, and to relax anti-malarial treatment with, perhaps, disastrous results, as many of these cases require immediate and prompt treatment, not even offering time to confirm the diagnosis made upon the clinical aspects of the case; quinine must be promptly given without the loss of a moment's time. Most patients presenting themselves for treatment, having suffered for some time, have taken more or less quinine, and under such circumstances the parasite will not be found in the peripheral blood.

Of the two forms of æstivo-autumnal fever, the cerebral type seems to be of more frequent occurrence in our experience, and the patient being seen for the first time, is found in a comatose condition, and often without a history obtainable. The prevalence of malaria in the environment of the patient and clinical picture alone can guide us.

If at all possible, examination of the blood should be made before instituting treatment; quinine should be given quite boldly, and preferably hypodermically. The dose should be not less than fifteen to twenty grains, and if the diagnosis is confirmed by a blood examination, a hypodermic injection of from fifteen to twenty grains of quinine should be repeated within two to three hours after the first. To give small doses of quinine is to lose valuable time. Where the patient can take quinine by the mouth, our rule is to give thirty grains of quinine in a solution, and repeat within eighteen hours. Should the patient show any subjective symptoms of the influence of the drug, it should be given hypodermically. Intolerance to quinine is not so common as is usually supposed. People will often claim that they are unable to take the drug, but when it is given without their knowledge, no bad results follow.

The secret of success in the treatment of æstivo-autumnal fever is large doses of quinine, and repeated as the conditi may demand. No cases should be d charged as cured until the organism is tirely disappeared from the blood.

The most unyielding of all types to t influence of quinine are those in wh the crescentic bodies appear in the blo of the patient. After subsidence of acute symptoms and temperature broug to the normal, these patients should kept under active anti-malarial treatme preferably quinine and arsenic, until t crescents have actually disappeared. U less such disappearance is effected af the treatment is withdrawn, and in sp of a normal temperature, and a feeli on the part of the patient of being p fectly well, there is certain to be a rec rence sooner or later.

There is no choice as to what prepa tion of quinine, if it be in acid soluti Our preference is for the hydrochlora because it is quite soluble in water. fact, for hypodermic use, the hydrochl ate, dissolved in water, acidulated w one or two drops of lactic acid, the do can be taken up in one ordinary syrin ful. Another useful salt for hypoderm medication is the hydrochlora sulpha fifteen grains of which must be dissolv in sufficient water to fill the barrel of ordinary hypodermic syringe. If prop surgical cleanliness is observed, above a clean needle, no abscess will be form

105 St. Joseph Street.

[Written for the MEDICAL BRIEF.]

A Few Suggestions in the Treatme of Fractures of the Leg.

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The question of fractures is too exhau ive to be treated as one subject, but a f practical points to the general prac tioner might possibly be of assistance, n only to one of little experience in su matters, but to the comfort of the pati as well.

How many young physicians, or ev men of long experience, are called upon

treat fractures of the leg, having at their command no better preparation than a few didactic lectures upon the subject. It is not a question of text-book knowledge, but rather a matter of common sense, and a fair knowledge of the anatomy of the parts.

First, what do we wish to accomplish? Simply to restore the limb to its normal condition so that ossification will take place with the least amount of deformity. It is, therefore, necessary to ascertain first the character of the fracture, and whether due to trauma or muscular action. If the fracture is transverse, the bones are easily held in position when once replaced, and this in itself simplifies the treatment, but an oblique fracture would require a more accurate adjustment of the splint.

The first thing to ascertain then is the nature of the fracture. Next, its reduction and replacement, and, third, the best plan to accomplish the end. The first is not always an easy matter, if the limb is much swollen. When such is the case, a temporary splint is best, and at the end of ten days, when the swelling is reduced, the deformity can always be recognized and corrected.

The best method of reducing a fracture is by bending it out at right angles to the abdomen, and the leg at right angles to the thigh. This relaxes the powerful muscles of the calf, makes manipulation more easy for the physician, and less painful for the patient. Once set, the leg is straightened, and the splint applied.

Temporary splints are best made from cardboard, and this should either be so shapen or padded as to fit the contour of the leg, so as to prevent sagging at the point of fracture, especially if it be at the lower third. The best permanent splint is made of plaster of paris, properly adjusted —nor can this be done without some practical knowledge in the art.

One of the most important points in regard to treatment of fractures is suspension of the leg. The old method of treating these injuries in the fracture box, by putting them in a temporary splint anchored between two sand boxes, was unquestionably the cause of so many deformities, and likewise the result of great inconvenience and suffering to the patient. Imagine a poor individual anchored to his leg, rather than his leg anchored to him, who dared not move from his position for fear of causing pain to his leg.

The advantage, therefore, of suspension is that it allows the leg to lie comfortably in the splint which will follow the movement of the body without causing the slightest inconvenience or pain to the patient or disturbing the bones at the seat of fracture.

All simple fractures of the lower third can be treated in an ambulatory splint just as soon as the swelling disappears, allowing the patient to pursue his daily avocation within two weeks from the time of injury. Think what this means to the reputation of a physician, as well as to the comfort of the patient, and how much larger fee one would be justified in charging if the patient be released in one-third of the time that was formerly required.

1428 St. Josephine Street.

[Written for the MEDICAL BRIEF.]

A Satisfactory Operation for Harelip.

BY L. B. GRADDY, M. D.,
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A harelip is the result of imperfect development, no matter by what particular name it is called. The cleft in the lip may be only partial or it may be complete, always a little to one side of the median line, and generally extending into the nostril. It may be associated with cleft in the hard palate, or it may be confined to the lip. It may be single or double. In such cases we have always more or less deformity of the teeth, particularly of the central incisors, one or the other projecting outward, and perhaps turned edgewise, giving to the mouth an extremely unpleasant appearance. The teeth appear excessively long, one of the central incisors being turned edgewise, gives to the arch of the teeth a gothic appearance if turned front side up, instead of the natural smooth curve. This unsightly deformity should be corrected as early in life as possible. The amount of ingenuity which has been expended in this effort is surprising; vari-

ous means have been resorted to for correcting the deformity with at best only partial success. An interesting feature, found in nearly every case is the absence of one or more teeth. That is, they do not show. But in all cases of harelip, and in all cases of cleft palate where there is an absent tooth, you may rest assured that that tooth is somewhere in the upper portion of the face, in the antrum of Highmore, or in the nose, possibly high up, even above the middle turbinate. I have taken several teeth from the nasal cavity which required considerable force for their removal.

But the most important matter is the correction of the deformity. How can we restore the lip to an appearance approximating the normal? This is a matter of mechanics pure and simple, a matter of ingenuity. The lengthening or shortening of a definite line already established. It is necessary to call attention to what has been done by almost every surgeon previous to the operation which I devised several years ago, and which I have demonstrated repeatedly. What is usually done in such a case is to freshen the edges of either side of the cleft by means of curved scissors, beginning at the lower edge, cutting upward, bring the raw edges together, which as can readily be seen, leaves a gap in the lip where there should be a projection. Of course, the gap will remain. If we can do away with the gap and establish a normal projection at or near the center of the lip, and restore the lip to an approximately normal appearance, we shall have succeeded in curing a deformity that has been the terror of mothers, and the ridicule of many heartless persons for all time.

Examining one of these cases we will find there is a lack of tissue. By lifting the side of the lip only a trifle, we find strong traction established between the external portion of the lip and the mucous membrane of the gums. The mucous membrane, in other words, presents the appearance of having formed a band or flap. So far as that band extends, the deformity will extend.

Hence, any operation beginning at the inferior edge, and ending at the upper portion of the cleft, will leave a gap in the lip. It goes without saying that notwithstanding the curved line lengthens t raw surfaces which are to be brought gether, it does not interfere with th band, and the gap when the edges un will remain.

Having met with the same difficul which confronted others in proceeding this manner, I saw that there was son thing lacking. How could it be treated as to correct the error? I devised t following operation, which is not difficu of performance, and the cosmetic effect which leaves but little to be desired. troducing up under the lip as far as pos ble one blade of clamp, some distan from the edge of the cleft, the op ation is practically bloodless. Then dra ing up the side of the cleft, and putti strong traction upon it, I loosen all of t mucous bands until the lip is freely mo able in every direction.

Passing to the other side, the same p cedure is gone through with, the clam being allowed to remain on the first si to which it was attached. After detachi the mucous bands entirely, the upp portion of one side of the cleft is seiz with toothed forceps, and held firm while it is transfixed with a strong kn near the upper end of the cleft, a little the outside, cutting downward, and ma ing a curved line outward and downwa to the pink of the lip, stopping at th point. Doing the same thing on the oth side, cutting downward instead of upwa as is usual. The upper ends of the t flaps are detached, both being allowed hang down over the mouth side by si Then closing the wound by through a through sutures of No. 6 silk. Bringi the flaps together down to the pink tiss of the lip, then the lip is everted, and few small fine silk sutures placed in t mucous surfaces. The two flaps are tured at a point where after contracti of the tissue they will still leave a noti able projection in the lip. The whole supported by strong adhesive strips tending entirely across the face.

Wilcox Building.

Enclosed find check for two dollars payment for the BRIEF. I feel as thou I were beating you when I pay only dollar a year for the BRIEF.—J. TURNER, M. D., Sterling, Neb.

[Written for the MEDICAL BRIEF.]

Remarks on the Causes of Mortality in Intussusception and on the Advantages of Prompt Operative Interference in the Treatment of this Condition.

BY RUDOLPH MATAS, M. D.,

Professor of General and Clinical Surgery in Tulane University.
New Orleans, La.

The memories of past experiences which vividly emphasize the disasters consequent upon expectancy and so-called conservative modes of practice, and the gratifying contrast offered at the present time by the results of prompt and unhesitating intervention have convinced me that the only sure and safe way to reduce the mortality of acute intussusception is by operation. That the great and unnecessary sacrifice of infant life caused by this disease can be prevented has been eloquently demonstrated by almost every surgeon of experience who has written on the subject. That the results of modern teaching and experience are beginning to tell favorably on the mass of the profession, and on the public, is shown by the increasing number of cases that are now brought to the surgeon in an operable condition, comparing most favorably with the experience of the past when the surgeon was only summoned to the bedside as a last resort, when the patient was in a moribund condition, to give, as it were, a *coup de grace*, often expediting a fatal exit which every one foresaw was inevitable. Yet, in spite of the encouraging tendencies everywhere displayed, there are still too many practitioners who, for one reason or another, cling to the traditions of the past, or who, ignoring the possibilities of modern surgery, are still blind to the light of progress. Some of these practitioners cannot, or will not, think anatomically; they will not keep before their mental vision the picture of a pathologic process outlined before them by the clinical phenomena, but simply think pharmacologically; and thus, in the guise of a so-called conservatism, persist in applying traditional and worn-out methods of treatment which are not only irrational, but pernicious, in the mere fact that they rob the patient of his best, if not the only, opportunity for recovery.

The oft quoted dictum of Nussbaum, in reference to military surgery: "That the fate of the wounded lies in the hands of the surgeon who applies the first dressing," is applicable with equal force in the successful treatment of all acute abdominal conditions such as acute intestinal obstruction, strangulated hernia, acute appendicitis, perforating ulcer of the stomach, acute cholecystitis, etc., in which there is a variable period of comparative safety when the injured or diseased area is still small, the focus of infection still limited and well-defined, the peritoneum still clean and quiescent, and when the mechanic disturbances (as in intussusception) if existant, can be easily corrected by direct, gentle manipulation. It is in these early stages of abdominal disease, when the evil is still purely local and circumscribed, that the general condition of the patient is surgically good, and will permit a thorough and profitable intervention with almost absolute safety. This golden opportunity is, unfortunately, not given to the trained surgeon who devotes himself exclusively to his specialty, and who is most familiar with the physiognomy of abdominal disease, unless it be when the general practitioner who is first summoned to the field of action is quick to see the opportune moment, and calls upon his more experienced colleague for his assistance.

The conditions found in intussusception are, however, so simple, in the early stages before gangrene has occurred, that it is possible for any one who is familiar with the technic of aseptic surgery, to open the abdomen, to reduce successfully an invagination with greater ease and even less risk than is involved in reducing a strangulated hernia.

Ideally simple as these conditions are when the bowel is simply incarcerated, they become most difficult, complex and grave when strangulation and gangrene have occurred. Then the whole aspect of the case is changed, and even the man of greatest experience and technical dexterity must prepare for failure and defeat. In summing up the factors in the mortality of intussusception, we would mention, first, delay in the recognition of the con-

dition, *i. e.*, tardy diagnosis, precious time lost while waiting for the diagnosis to clear up in the presence of manifestly grave, menacing abdominal symptoms. Too often, when the diagnosis does clear up, gangrene and intestino-peritoneal sepsis have set in, and the precious opportunity for simple, safe and sure surgery has passed.

Nevertheless, the diagnosis of acute intussusception is one of the most characteristic and readily established of all the acute abdominal obstructions. Acute, sharp, intermittent abdominal pain, usually well-defined, and circumscribed in the start, accompanied by vomiting in paroxysms, and soon followed by tormina and tenesmus, with frequent small mucous, blood-stained stools, which rapidly lose all fecal character,—all coming on suddenly with progressive signs of distress and exhaustion, unexpectedly, in an otherwise healthy child,—justify the administration of a general anesthetic sufficiently to relax the abdominal muscles, and facilitate the search for the characteristic sausage-like tumor.

This important sign can be felt in fully fifty per cent of the cases without a general anesthetic, but, in my experience, is much more constantly recognized, and made far more accessible to the touch when the patient is completely relaxed by a general anesthetic.

In four consecutive operative cases of ileo-cecal invagination I failed to find a distinctly recognizable tumor until the patient was brought to the operating table, and was thoroughly relaxed by the anesthetic.

The foregoing group of symptoms: pain, vomiting, tormina and tenesmus, with frequent, small, mucous, blood-stained, stools, coming on suddenly in an otherwise healthy child, justify an exploratory laparotomy; more especially if signs of shock or collapse are apparent and progressive. If the characteristic tumor is recognized, then the laparotomy becomes immediately imperative. But even if the diagnosis is not absolutely complete, and there is an element of doubt as to the exact cause of the acute and persistent symptoms, the patient, especially if an infant, should be given the benefit of the doubt, and a direct exploration of the abdominal contents, by laparotomy, is undertaken. It is an error to believe infants do not stand surgery well, c they are especially liable to the sh abdominal manipulations. My expe directly contradicts this view. A paratively small incision is requi permit of a very thorough explorat the abdominal cavity, and its con organs; and in view of the fact tha ducibility with fatal sepsis are mo quent in the early periods of infanti there is still greater reason why th geon should avail himself of the g technical simplicity of a direct ex tion in this class of patients at the e possible moment after the onset of c teristic symptoms.

After a long and varied experie never hesitate, in the presence of grave abdominal symptoms, especial sistent pain, to advise and urge p operative intervention. I thor agree with F. W. Wiggin when he "Many lives will be saved, and thou of others made comfortable when cians generally come to recognize t all cases of persistent abdominal p obscure origin, exploratory ope should be performed, for it has be experience that a cause always does when such a pain is present (esp in children), and that it is usually with ease when looked for."

Another cause of mortality in int ception is an unfounded trust and dence in the value of pharmacologic mechanical methods of treatment, s purgatives and anti-spasmodics donna, atropia, tobacco poultices), sage, enteroclysmata, intestinal i tion, etc., which are not only unre but pernicious, as previously stated, majority of cases, because they inv loss of time in their application, which the patient rapidly drifts pa line of safety, from the domain o *aseptic* to fatal *septic* surgery.

In the chronic and sub-acute for intussusception, it may be permiss temporize and resort to rectal inje or enteroclysmata, but, even in cases, it is evident that the chances cessful surgical intervention are greater than in the acute cases, in all attempts at reduction by such me

pecially in infants, should not be prac-
ed or even taught. In the acute and
per-acute cases, there is no time limit
thin which operation may be delayed
th safety. The aim of the surgeon
ould be to operate before the intussus-
ption has become irreducible, and the
l for intervention is proportionally ur-
nt with the acuteness and violence of
e symptoms, regardless of the time in-
rval. Gibson has shown that the per-
ntage of reducible cases was ninety-four
r cent on the first day of the disease,
ghty-three per cent on the second, sixty-
e per cent on the third, and forty per
nt on the fourth day, etc., the mortality
creasing progressively with the irredu-
ility of the intussusception, and with
e number of days that elapsed after the
pearance of the first symptoms.

A third element of failure in the treat-
ent of intussusception is undue confi-
nce in the unaided efforts of Nature to
cure the spontaneous elimination of the
ughed bowel. It would appear from
chtenstern's classical statistics that out
every one hundred cases of intussuscep-
n of all kinds, some fifteen patients
ay be expected to recover, in conse-
ence of spontaneous elimination of the
vaginated bowel. But, as Treves crit-
lly remarks, this estimated proportion
recoveries is far too high. "Cases of
ontaneous elimination ending in cure
e more certainly reported than are cases
ding in death, and I would incline to
ink that the prospects of recovery in in-
ssusception depending upon spontaneous
mination is represented by considerably
s than ten per cent of the total mortal-
."

In confirmation of this view, I would
ote the following instance which occur-
d in my own practice: On February
, 1902, a bright lad of fifteen years was
ought to me for treatment from one of
e neighboring towns of Mississippi. He
as enjoying the best of health when he
as stricken, while at school, with all the
mptoms of acute intussusception,—sud-
n, violent and agonizing pain, which he
calized distinctly in the left umbilical
gion, about two inches to the left and
e inch below the umbilicus. From this
int of maximum intensity, the pain
diated and spread rapidly to the entire abdomen with greatest acuteness in the original spot. With this pain came vomiting, accompanied by tormina, and a frequent desire to go to stool, and with this tenesmus the boy passed frequent small, fluid and mucous stools. The pulse rose rapidly to one hundred and twenty, but the thermometer registered only 99° F. The diagnosis of intussusception was promptly made by the attending physician, but owing to unavoidable delays, the patient was not able to reach the infirmary until after the first fifty-two hours had elapsed. The general condition of the patient had grown so much worse by this time, and the stools were of such a character that I felt confident that gangrene had occurred.

I was then convinced that the chances of survival after operation were scant, and that his prospects for recovery, if any, would be just as good without operation as with it. He appeared to be thoroughly septic and exhausted. In view of my somber prognosis, the parents decided against the operation, and nothing was done except to stimulate the boy with hypodermics of strychnia and digitalin, and occasional small doses of morphia and atropin. He was allowed to drink ice water *ad. lib.*, so that he might vomit and wash his stomach without effort. This he did frequently, and apparently with great relief. Stimulating enemata containing turpentine, assafetida, and glycerine were resorted to at intervals, to favor the expulsion of gases, and wash out the extremely offensive ("carrion-like") stools which accumulated in the rectum. In the intervals between these enemata he was supplied with small quantities of whisky in saline solution, administered per rectum.

In the beginning, hot stupes were applied to the abdomen, as they appeared to give comfort to the poor sufferer. The patient remained in a doubtful and critical condition until the ninth day, when vomiting ceased, and other signs of improvement were noted.

On the fourteenth day he passed a slough of small bowel (probably a part of the jejunum) measuring thirteen inches in length.

On the eighteenth day after the onset of the attack, he appeared to have recov-

ered completely, and returned to his home. He appeared to be perfectly well while at home, until the thirtieth day after his arrival, when, without any premonition, he was suddenly seized, a few hours after a hearty meal, with all the signs of acute intestinal perforation, and died quickly of overwhelming peritoneal sepsis before any operation for his relief could be undertaken. In this case, death occurred forty-nine days after the appearance of the first symptoms of the invagination, thirty-five days after the expulsion of the slough, and thirty days after the patient's apparently complete recovery.

The conclusions that we gather from this experience are: first, that if it had been practicable to perform an exploratory laparatomy immediately after a diagnosis of intussusception had been established, reduction would, in all probability, have been easily effected, and the boy would have permanently recovered; second, that after apparent recovery had taken place, by the elimination of the sloughed bowel, it would have been justifiable, in the light of subsequent events to have made an exploratory laparotomy for preventive purposes.

In the course of this exploration, the exact conditions existing at the neck of the intussusception would have been ascertained, and, in all probability, a lateral implantation of the bowel or simple anastomosis would have been made at a point below the seat of the intussusception, in order to guard against the possibility of a stricture and secondary rupture of the intestine.

While it is very easy to reason *a posteriori* in such a case, we must realize that, no matter how much a preventive operation of this kind would have been indicated and justifiable, it would have been difficult to convince the parents of this boy of the need of such an intervention, especially when he appeared to have escaped so completely and miraculously from the first attack.

In pleasant contrast with this unfortunate case, I have before me the notes of three consecutive cases of intussusception, all of the ileo-cecal type, in which reduction was effected by operation:

One, a male infant, of seven months, operated upon, and successfully reduced by laparotomy, fifty-two hours aft onset of the first symptoms; the a male infant, fifteen months old ated upon on the seventh day (su type), and readily reduced by int toneal manipulation; and the th boy of eight years, operated upon t ond day, also successfully redu operation.

In all these cases, a part of the the appendix, caput coli and asc colon, had been invaginated in transverse and descending colon. first case, the intussuscipiens could as a polypoid mass in the rectu none of these cases could the cha istic sausage-like tumor be recogni til the abdominal walls had bee oughly relaxed by general anesthe median incision, varying from 2. inches in length was made in the diate supra or infra umbilical The invagination was at once rapi ognized and brought to the line of cision, and a reduction of the in cipiens was at once attempted by pressure and massage of the sheath tussusceptum. While the neck of tussusception was steadied, no t was made upon the intussuscipiens

In all the cases the invaginate was soon extruded and forced o various parts of the incarcerated appearing in anatomical order. A duction, the appendix was found and edematous, and was removed cases. The caput coli was ancho suture to the iliac fossa by attach mesentery to the iliac fossa. Th done with the hope of preventin currence of the invagination at t cecal junction, and while it is evid this fixation of the caput coli ca prevent invagination of the large is also plain that it would not pre entero-colic intussusception.

It is a question yet to be whether any effective procedure ca vised which will prevent a recurr an invagination. It is fortunate t lapses are comparatively rare af duction. In all the cases the il coil was provided with a complete tery, which gave the cecum and ing colon a great range of motion.

the patients, relief was immediate, and recovery uneventful.

The question may now be asked, what course would have been pursued in case of irreducibility with or without strangulation and gangrene? Past experience, always disastrous in such cases, has convinced me of the great danger of all radical operations which will expose the peritoneum to infection from the escape of the septic and intensely virulent contents of the bowel.

I am, therefore, not in favor of the Barker operation, which is usually advocated in such cases, because in opening the sheath of the intussusception, to excise the gangrenous intussuscipiens, the contamination of the peritoneum is almost unavoidable. In the majority of the gangrenous cases, the patients are unfit to stand an extensive radical operation which would include the resection of the entire invaginated gut with its sheath. In fact, in some cases, such a procedure would be technically impracticable. No operation such as an anastomosis, or a simple artificial anus, which will give issue to the feces above the obstruction, but leave the gangrenous or strangulated bowel *in situ*, is rational or likely to give relief. Therefore, to avoid the pitfalls of septic peritonitis from intestinal contamination on the one hand, and the risks of auto-intoxication from the retention of the gangrenous gut, there are but two alternatives: First, to make an artificial anus, which shall include the neck of the invagination, with a part of the intussuscipiens and of its sheath; then this is to be extraperitonealized by suture of the parietal serosa to the gut, after which the neck of the invagination is to be resected, the vessels of the mesentery ligated, and the incarcerated or gangrenous intussuscipiens extracted. The artificial anus, which is thus left open, permitting a free drainage of the septic intestinal contents.

Second, the operation recently suggested by v. Miculicz may be adopted. This operation, as performed successfully by v. Miculicz in two cases, was described by him in a contribution to the Transactions of the American Surgical Association for 1903, and may be summarized as follows: "The intussusception is drawn to the abdominal incision, and stitched there, so as to prevent infection of the peritoneal cavity. The wall of this gut is then incised longitudinally for a sufficient distance (12 cm.) in a case of ileo-colic invagination. This exposes the intussusception, which is composed of two tubes of intestine, one inside of the other. If their vitality is destroyed, they must be resected, and as their serous surfaces are in contact, the peritoneal cavity must be here protected from infection. This is accomplished by cutting through both intestinal tubes little by little, and stitching them together as fast as cut, by catgut sutures which penetrate all the coats. The mesentery will require multiple ligation. The invaginated intestine can then be extracted. The opening in the intussuscepiens should not be sutured, but should form an outlet for the feces. This artificial anus can be closed some weeks later." (See synopsis by Coley, *Progressive Medicine*, June, 1904, p. 73.) By adopting this procedure it is possible that the terrible mortality of resection (thirty to sixty per cent) will be greatly reduced, at least in those cases in which the sheath itself (intussusceptum) has not become gangrenous, and intestino-peritoneal sepsis has not already overwhelmed the patient.

My object, however, in writing these brief remarks is not to discuss the modern contributions to the technic and operative surgery of intussusception, when it has reached the stage of irreducibility, strangulation and gangrene, but simply to urge the family physician who first sees these cases to act promptly, decisively and confidently in advising an immediate resort to direct, open surgical methods of treatment at a time when these measures can be applied quickly, surely and safely in rescuing the lives of those placed in jeopardy by this formidable disorder.

2255 St. Charles Avenue.

Enclosed find one dollar for which you will please send me the MEDICAL BRIEF, as I find it the best journal I have ever taken.—W. T. SHANNON, M. D., Geneva, Texas.

[Written for the MEDICAL BRIEF.]

Enteralgia and Colic.

BY F. L. RATTERMANN, M. D.,

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Probably intestinal pain is one of the most frequent symptoms complained of during the years of childhood. The tendency of children to eat too much, when opportunity offers, of rich food, as of cake and candy, or unripe fruit, is too well known to need more than passing mention. We have all had the experience of treating these conditions. Even mothers taught by former experiences, or informed by the experience of others, realize the relationship of cause and effect, and without further consultation apply the usual cathartic remedy.

Max Buch, Helsingfors, Finland, in a long treatise on enteralgia and colic, in the Archiv. für VerdaungsKrankheiten, Vol. No. 12, book 4 and 5, believes that intestinal pain is generally due to a neuralgic condition of the lumbar sympathetic, only occasionally could he locate the cause of pain in a tonic spasmodic contraction of the muscles of the intestines. It is with a view of ascertaining, by the analysis of the ordinary cases that come to the physician, the probability of the truth of either one or both of these hypothesis that this paper is written.

In intestinal pain consequent to digestion of improper food, the muscles of the abdomen are generally, if not always, tense, while the gurgling sounds of the quickly moving intestinal contents reveal the increased peristalsis of the intestinal coil. In favorable cases the abdominal wall can be seen successively to rise and fall with the peristalsis of the underlying gut.

These peristaltic movements are frequently followed by pain, demonstrating the relationship in these cases of peristaltic action of the bowel to pain.

In contradistinction to this form of intestinal pain, Buch, as above stated, has isolated another form, and, in his opinion, a more frequent type, which he separated from the violent muscular intestinal contractions of the former in that the abdominal sympathetic system alone is att producing a typical neuralgia in plexuses of nerves. These pains ar ally of a numb, heavy character, b assume the sticking, cutting chara the cerebro-spinal system.

The whole abdomen can be inclu the range of pain; that is, the might feel the pain diffusely over t domen, but only the region of the di tion of the filaments and ganglia sympathetic around or near the a sensitive to touch. Pressure made tain spots along the aorta can eli pain if at that time it be quiescent, aggravate it if present. Pressur where else, as in the lumbar, ingui hypochondriac region, is not follov pain. Slight intestinal fermentatio mal to digestion, can by dilating t press upon the underlying symp nerves surrounding the aorta, ar duce the pain which is occasiona perienced either immediately, or el eral hours after eating.

Buch asserts by the intensity o elicited on pressure at certain spots the abdominal aorta (whether ab below the umbilicus) that we ar from our anatomical knowledge of t tribution of the abdominal sympa to diagnosticate the branch affected know that the abdominal aorta i mally sensitive to pressure, and tients not complaining of intestina in whom the abdominal muscles a enough to follow the palpating aorta sure upon it, particularly if wedg tween the finger and the vertebral c will generally elicit pain.

Head's phenomenon of a sensitiv to light pressure, and absence to he frequently present in disturbance abdominal sympathetic, but this sy can be present in the skin of other of the body when any underlying or tissue is affected. Pressure at c spots along the direction of the abdo aorta, without reaching the pulsatin sel, is followed in these cases eith eliciting severe pain if quiescent, o aggravating it if present.

These neuralgic attacks occur sud and are neither affected or aggravat a rule, by improper food. Increased talsis should not be characteristic o

picture of enteralgia. The pain is frequently lasting, and abates often as rapidly as it came on. The intestinal crises of locomotor ataxia is believed by many to be a form of enteralgia.

Nothnagel, Vienna, in a very interesting article on colic (Archiv. für Verdaung-Krankheiten, Vol. 11, Bk. No. 2, page 124), in defense of his position against the attack of Buch, emphatically states that neuralgia of the lumbar sympathetic is decidedly less frequent than colic. Colic he defines as a painful irritation of the intestinal nerves associated either with a strong tonic contraction of the intestinal coil, or else produced by it, the ordinary traumatic or mechanical irritations of the bowels not being severe enough of themselves to awaken these painful irritations. He believes that the anemia of the gut, consequent to a long lasting spasmodic contraction of the intestinal coil is the real cause which awakens in the sensory nerves these painful stimuli which are perceived as colicky pains. The nerves, in other words, are denied under these conditions the nutrition of the arterial blood, and respond accordingly by sending out painful irritations. He substantiates his position by stating that cephalic pains are generally present after ligating one of the carotid arteries, and only gradually passes away after the collateral circulation has overcome the temporary anemia.

The headache in ordinary anemia as well as the intestinal pain in the beginning of embolism in the superior mesentery artery, is due, he believes, to the temporary anemia of the nerves in these organs. If this theory is correct, it would then seem equally true that wherever anemia exists, or is temporarily produced, pain must be the necessary sequence. But is this true? Does pain, for instance, follow the anemic condition of the mucous membrane of the nose after the application of the proper remedy, or in the finger, toe, arm or leg, when the blood is forced out, and kept so by tying a compress around the extremity? It appears the reverse anesthesia results, not hyperesthesia or pain. It seems difficult to admit the probability of this theory when one can demonstrate its absence by these experiments. The physiological law of contrary innervation, I believe, offers the best theory for the explanation of colic.

The law of contrary innervation means that sympathetic to contraction of any portion of the intestines, relaxation follows of the portion continuous with it below. Immaterial how hard the intestinal coil contracts, as long as this law is not violated the individual is free of pain, but if the intestine below the contracted area contracts instead of relaxes, we have a violation of this law, and pain results.

Meltzer, of New York, was the first to offer this theory, and, I believe, it is the most rational theory for the explanation of colic. The theory of Wilms (*Munchener Med. Woch.*, 1904, No. 31) that colic is the result of stretching of the mesentery, or of Lennander (Grenzgebiete der Medizin und Chirurgie Bd, 10), that it is due to a stretching of the parietal peritoneum by the contraction of the pathologically formed peritonitic bands between the intestine and the parietal wall is more than doubtful. For if Wilms' theory is correct, then why the intermittence of pain in cases of intussusception of the bowel when the greatest possible stretching of the gut exists? And if Lennander's theory is true, then why the frequency of pain in flatulent, rheumatic or stercoral colic where we know that peritonitic adhesions usually do not exist between the intestine and the peritoneal wall?

Willis, two hundred years ago, assured the medical world that colic was a disease and not a symptom, but gradully observers noted the fallacy of his statement, and formed other theories which in turn gave way to still others, until now the multitude of confusing theories are such as to preclude the possibility of even their mention within the limits of this short paper.

In conclusion, let me rapidly sum up the main thoughts of this article:

1. That enteralgia and colic are not synonymous terms, but are affections distinctly separate in pathology, etiology, and symptomatology.

2. That enteralgia is not more frequent than colic, as is assumed by Buch, but, on the contrary, I believe enteralgia to be much less frequent.

3. That colic is produced by disturbance in the law of contrary innervation in

the sense of Meltzer, and as above explained.

4. That enteralgia is probably a neuralgic condition of the plexuses of the sympathetic nerves and ganglia surrounding the aorta.

4 West Seventh Street.

[Written for the MEDICAL BRIEF.]

The Cigarette Evil.

BY A. H. BRADLEY, M. D.,

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Anyone condemning a practice or habit indulged in by a large number of people is apt to secure for them the name of being an extremist; however, I contend that the prevalent habit of cigarette smoking which shows a tendency of becoming general is a thing we, especially as physicians, should call to public notice as regards its baneful effects.

The use of tobacco has become deeply rooted among most nations, and, no doubt, it will take a long time to teach the people its harmful effects, and cause them to give it up. One reason is, because it has become a commercial factor, and is a source of revenue, and the means of providing a livelihood for a great number of persons. Again, the habit has been formed by so many that it has become looked upon as a thing to be expected of all men, and most boys look forward to the time when they can use it and "become a man."

Most schools at the present time teach the effect of nicotine in their books of hygiene, but regardless of this fact the use of tobacco in all its forms seems to be on the increase. No doubt that tobacco in any form, especially if used to excess, is deleterious, but it is of the "coffin nail" form that is, to my mind, the most hurtful. One can seldom board a crowded car in our cities without being able to count a half dozen or more "cigarette dudes," or fiends, on the back platform puffing out volumes of the offensive fumes through their nostrils, and a non-user can readily detect the odor of the same as soon as he enters a car, which emanates from the clothes of the sap-headed gentry. I call them that name because, to my mind, they must be lacking in brain caliber, or t would know enough to abstain.

I once heard an eminent member of medical profession in St. Louis rem that he could find an excuse for a smoking a cigar, but when he sav man (?) smoking a cigarette, he felt sc for him. He felt that he did not h enough brain matter to guide his acti in the right channel.

One might here bring forward the gument that many doctors and educa persons are cigarette smokers. I gr that to be a fact, and we also have to mit that many of them are also vict of alcoholic and other excesses, but t does not prove that their use is benefic It is easy for me to recall to mind sev physicians that are cigarette fiends. of these, I am told, quite frequently to rush through a surgical operation order to get a smoke—a relished "nail that his cravings may be gratified. other one, now dead, a noted alienist, sisted in convicting a medical stud who was a noted fiend for cigarettes, t had killed his wife and child, yet he h self was a victim of the same vice, finally lost his own life from dise brought on by nicotine poison, toget with kindred indulgences, no doubt su induced by the cigarette poison.

I have had opportunity of observin great many patients that I am sure heart, liver, kidney, nose and throat nervous diseases that could only be counted for through the use of tobacco excess in this form.

Having been an examiner for over n years for a leading life insurance c pany, it has been my privilege of not the effect upon the heart of hundreds cigarette users, and I can say that, w out doubt, in at least eighty per cent them, their pulse rate will average beats more than normal. Common se would cause us to conclude that ex work thrown upon the heart to this tent, can not but be injurious to the he itself, as well as to favor congestion other organs of the body, due to its effe on the circulatory system.

It is gratifying to know that many porations, like railroad companies, h put the ban on cigarette users, recogn ing the danger from fires as well as

fact that those using them are not so reliable as non-users.

In countries like Spain and some southern lands that are known to have degenerated, it is not unusual to also see women addicted to this filthy habit, and I have little doubt but that to this cause can be attributed, in a great measure, the fact that the peoples inhabiting these countries are not up to the standard of those other countries in mentality that have not been users for a great length of time.

In the United States, at present, we seldom see a member of the gentler sex indulging except she be a prostitute or a woman of so-called "society" that has become a user through a desire to be called "game," or that does it to "quiet her nerves" after late hours, or to combat temporarily the strain on her nerves, the excitement incident to revelry. Prostitutes are always given to adding other vices as they present themselves, and to this fact alone we can readily attribute this habit to be a vice, and a vicious influence to be combated.

It is a filthy habit from an esthetic standpoint as well, and I can not imagine anything so obnoxious as the odor emitted from the breath and clothes of a cigarette fiend, and the discoloration of the hands is anything but sightly.

In view of all these things I have enumerated, it seems high time for the medical profession, which can not but know the evil effects of this growing habit, to take upon themselves the good work of teaching their patients and friends the harm wrought by this deadly and unclean habit, and also to urge legislation against it, and the enforcement of the laws that are made.

915 North Twenty-First Street.

[Written for the MEDICAL BRIEF.]

Nervousness.

BY W. T. MARRS, M. D.,
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Often due to autoxemia, by which the blood is not sufficiently oxygenated. Calomel and soda, one grain of each, at bedtime for a few nights, often works wonders. If a nerve sedative is indicated, a preparation of celery in proper doses will be found the least harmful.

[Written for the MEDICAL BRIEF.]

Etiology of Prostitution.

BY ALFRED DE ROULET, M. D.,
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Few subjects have been more widely discussed with less benefit in the way of results than the various phases of the so-called social evil problem. The principal reason for this barrenness of results lies in the fact that the great majority of the participants in the discussion either have no actual knowledge of the subject, or they are swayed to such an extent by prejudice and preconceived theories as to be incapable of appreciating existing conditions. Until conditions are thoroughly understood, attempts at remedial measures are futile.

In studying this subject, a broad and sympathetic knowledge of the frailties of human nature, combined with keen power of observation and analysis, is essential.

The causes which would lead a previously reputable woman to become a wanton are numerous, but not, as a rule, complex. These causes vary widely with the subject's training, social condition, surroundings, and associates. The causes which would lead to the downfall of a society girl would be inexplicable to her sister in the shop, while factors which would be irresistible in the working girl would not be appreciable to the wealthy butterfly. Certain factors operate to a greater or less degree in all cases, while others are operative only in certain limited classes.

As a rule, the descent into the demi-monde is not accomplished at a single step, and there is a vast difference between the young woman whose kindness occasionally exceeds her discretion and the common prostitute. Neither does it follow that because a woman is subject to occasional lapses of virtue that she will develop into a demirep. In fact, in a generous proportion, if not a majority of cases, she does not; neither is it permissible to assume that the causes which would lead a girl into indiscretions are the same as those which would lead her into the demi-monde. While all prosti-

tutes were originally guilty of indiscretions, all indiscreet girls do not become prostitutes. Except in a certain rather limited group of women who become wantons voluntarily, as the result of peculiar temperamental conditions, there is usually present a well defined element of compulsion.

Among the causes which would lead a girl to take the first step, ignorance of possible consequences, associated, probably, with deficient moral instruction and stamina, when combined with sufficient temptation and suitable opportunity, is easily entitled to first place.

American young women are either entirely ignorant of sexual matters or they are fully instructed in things of which they should know nothing. A girl of the first class does not realize the consequences of her act; one of the second class thinks she can avoid them. With many, if not most, women, a wholesome fear of consequences is a great incentive to virtue, and as our Puritanic notions place the mother of an illegitimate child beyond the pale of human forgiveness, and regards complacently the murderer of an unborn child, one great incentive to chastity is nullified.

Abortion is now practiced to so great an extent that there are men in every town whose reputations for this kind of work have made their names household words in their respective communities. Presumably reputable publications do not hesitate to print their advertisements. On actual count the advertising columns of a certain well-known Sunday paper which boasts its ultra-respectability revealed the presence of the advertisements of thirty abortionists and of eighteen drugs or preparations "guaranteed to correct any irregularity regardless of the cause." If one-fourth of the energy wasted in persecuting prostitutes was expended in prosecuting abortionists, much good might be accomplished.

On the theory that it is impossible for the American young woman to slip a moral cog, the young of both sexes are allowed to mingle freely at all times without supervision or restraint.

We are accustomed to scoff at continental chaperone systems, and pride ourselves on our own superiority. We brag that "the American girls do not need watching." The continentals, however, realize that most young men do need watching, and, knowing that propinquity is the mother of iniquity, they guard against temptation by eliminating the possibility of falling.

In America many of our customs seem designed to facilitate temptation and opportunity. The American parlor after dark has probably been the scene of more mislaid virtue than the much condemned wine rooms of our cities, while our public schools and co-educational academies and colleges have a more widespread and deleterious influence on morals than immoral books and plays. Mingling young people promiscuously at an age when passions are easily aroused, physical impulse at its strongest, and moral and ethical restraints at their weakest, is certainly more dangerous than the mental effect of bad reading or immoral plays with no opportunity for physical gratification.

Among the leisure classes, idleness, vanity and curiosity are the important factors. A girl of this class, as a result of her mode of life, has her normal craving for admiration enormously stimulated. To attract attention, which she often mistakes for admiration, she combines in her costumes, as far as possible, the scenic advantages of the dinner gown and the bathing suit. She tells risque stories to increase her popularity, and drinks and smokes with her male friends to show what a jolly good fellow she is, and before she realizes she has carried good fellowship a little farther than she intended.

Among the poor the surroundings and associates are not altogether conducive to high standards of morality. Few are aware of the extent to which even the respectable poor are compelled to associate with the vicious, both at home and in the shop, and the girl who, by hard work, is enabled to earn only a bare living, is not encouraged to persevere in the paths of righteousness when she sees her less virtuous acquaintance wearing fine clothes and living apparently a life of luxurious idleness.

The entrance of woman into the industrial world has also added to the dangers which surround her. The promiscuous mingling of the sexes while at work, often

on wages insufficient for decent support, with low moral and hygienic surroundings, is not conducive to chastity. And since she is now a competitor, there is developing a tendency on the part of the male to drop his chivalric attitude toward women. In the great industrial centers, this respect for women, which at one time was an important factor in the promotion of social purity, is rapidly becoming a tradition.

The exploitation of licentiousness in the newspapers, the publication of every nauseating detail of the more notorious divorce cases, with alleged pictures of all concerned, lengthy accounts of the liaisons, real and imaginary, of famous personages, detailed accounts of sexual crimes, books idealizing adultery, plays dealing with the so-called "sex problems," a polite term for clandestine prostitution, all tend to excite the passions and arouse the curiosity of those least able to withstand either. Ungratified curiosity has long been recognized as a potent cause of feminine troubles.

As to the factors which would lead a woman to become a public character, believing that data of considerable interest could be obtained from the women themselves, I questioned one hundred and eight declasse patients, with the following results:

Fourteen attributed their downfall to ignorance, and became prostitutes because they thought there was nothing else for them to do. Nine of these were country girls who came to the city to find work.

Ten were accidentals who drifted into the professional class as the result of discovery, scandal, etc.

Thirty-six were out of work, and, unable to find employment, they had no other way to support themselves.

Twenty-three became prostitutes voluntarily, because they thought it would be a good way to make an easy living, because they were too lazy to work, or because they wished to wear finer clothes and have more good times than they could if employed regularly.

Nineteen were employed in offices, stores, or factories, and were unable to support themselves on their regular wages.

Six attributed their downfall to domestic difficulties. Of this six, five were kept women, and one the proprietor of a fashionable assignation house.

These women form a fairly representative group. Five were proprietors of either brothels or assignation houses, forty-four were inmates of disorderly houses, eight were kept women,* ten were street walkers, and thirty-one were clandestines. No account is taken in this group of a very large class of women who, while not technically prostitutes, distribute their favors among a more or less extended circle of friends. For convenience, these women are termed accidentals. A small proportion of them gradually drift into the professional class.

34 Washington Street.

[Written for the MEDICAL BRIEF.]

A Physiological View of Death.

BY WM. R. FRISBEE, M. D.,
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The rest of mankind is under sentence of death no less truly than is the convicted criminal awaiting execution. One essential difference in the two cases is that the latter knows how, where and when his earthly existence will probably terminate. The others are left in the dark on that point. No avenue of ultimate escape is possible in either case. There may be reprieve and delay, but a fatal termination is inevitable. Our brief expectancy of life is fixed by fate and reduced by insurance statisticians to a mathematical proposition.

It is a matter of surprise that so momentous a fact, which concerns every human being so deeply, and which of necessity obtrudes itself so often and so persistently upon every adult mind, should, by tacit and almost universal consent, be tabooed as a subject of discussion, and so seldom be even hinted at in ordinary conversation.

*By a kept woman is meant the mistress of (presumably) one man. A street walker is a prostitute who, living in a single room, goes out on the streets in search of business. A clandestine is a prostitute who lives in a hotel or boarding house, and who, while pretending to be decent, meets her friends at various places for a cash consideration.

We need not go far to find explanation. Men, in this respect, are not unlike the ostrich, which, finding escape from a supposed enemy to be impossible, ignores the inevitable, and hides its head in the sand.

And death, regarded as the last great enemy, is designated in ordinary speech as a "grim monster," and "king of terrors." The average lips blanch with pallid fear when brought unexpectedly face to face with the possibility of its near approach. Avoiding the very name, we substitute for it such expressions as "a passing away," "a going to rest," and, in most instances such euphemisms are merely obvious attempts at disguising an unwelcome reality.

An essential difference between man and the lower animals is that the former knows and can realize the certainty of death. All animals alike, including man, cling tenaciously to life, as is especially noticeable in time of peril. This instinctive and universal impulse is implanted for the obvious purpose of protection from injury and for self-preservation. The knowledge that existence must terminate at a more or less remote period, and that it has a definite limitation, is probably confined to man, who alone has faculties sufficiently developed to enable him to deduce general and certain conclusions from observation and experience. An avoidance of causes endangering life is based upon reason as well as instinct. In the case of man this useful provision of Nature often degenerates into such a horror of dissolution as to overshadow and eclipse much of the enjoyment and satisfaction which rightfully belong to living. Men are but children of a larger growth. The child, put to bed in the dark, though surrounded by every possible safeguard of home and parental love, yields to senseless terror and unreasoning fear of imaginary conditions. A crowded audience, composed largely of men who would readily face real danger in a good cause, is stampeded by a causeless panic. Groundless fear makes cowards, even of the brave.

Nor is the dread, or fear, of death based generally upon imagined condition of a future existence. In most cases it seems to relate chiefly to the act of dying, which is popularly conceived to be one of agony or suffering. The average mind is apt to confuse the fact of death with the condition of disease or injury and attendant suffering which often precede it. For this reason such expressions as "pangs of dissolution," and "death agony" are misnomers and misleading. Then, too, the disposition which may be made of the corpse is a prominent and not uncommon factor in this dread. The habiliments of mourning, the shroud, the casket, the grave, the cemetery, conjure up a picture of revolting horror to the average mind. Much, too, chargeable to adventitious surroundings, is often accentuated and aggravated by suggestions of bigotry and superstition.

It seems strange as well as pitiful that dread of its ending should so largely lessen the enjoyment of living. As a matter of fact, there are many good and well-supported reasons for a contrary view. Such reasons are based upon science as well as common experience.

The oft-reiterated truism holds good here that we apprehend more trouble than ever materializes, and, as Shakespeare says, "the sense of death is most in apprehension."

Under a strict analysis it must be admitted that death is nothing more than a negation. It has no distinctive characteristics, and is merely a convenient term for expressing our mental conception of the ending of physical life.

What life itself is and the real nature of vital processes, is a problem of problems, ever baffling solution, and which need not be considered in this connection. That it should have an ending is involved in the very fact of its beginning, and the beginning of this ending dates from the moment of birth. It is a generally recognized physiological fact that at least as often as every seven years the body is wholly renewed in all its parts. Thus a man who has lived his three score years and ten, has changed his body, or, in other words, passed out of it, ten times. The final passing out is simply an accomplishment, by a single physiological process, of that which has so often occurred by a gradual and piece-meal dissolution. In each instance the process is a natural one, and no more to be dreaded, as to the method of occurrence, in the once case than in the other.

Nature never inflicts pain needlessly. Pain is intended as a danger signal, warning us to avoid conditions causing it. When no purpose could be served by it, Nature spares us the infliction. Hence, it may be fairly assumed that when life ends at a normal period, from natural causes, such ending is painless. We are, in fact, no more conscious of the precise moment when the final change occurs than we are of the moment of dropping to sleep. All of us have unsuccessfully tried to realize the latter moment.

In the economy of Nature, suicide, accident, and even disease, are not contemplated as causes which should terminate existence, and circumstances attending such a termination are too numerous and varied to admit of such classification as is partially possible under normal conditions.

Strictly speaking, we should regard death from old age as the only normal or natural ending of life, and when, in conformity with this obvious intention of Nature, we leave the worn-out body, much as ripe fruit drops from a tree, the change is effected without physical pain, and probably often accompanied by a sense of relief. The manner of occurrence, as well as the immediate cause, have a bearing on this point.

In the aged, life ends most frequently from a rupture of a cerebral artery, or interruption of the heart's action, and in such cases, whether occurring suddenly or gradually, there is no more consciousness of life ending than there was of its beginning. It is essential to consciousness and sensation that the brain and nervous system should receive that full supply of blood upon which their functional activity depends.

In sleep, in fainting, in catalepsy, and as the result of certain accidents, the vital functions are temporarily suspended, and meanwhile consciousness and susceptibility to pain disappear. We may regard death, whether chargeable to violence, disease or senile changes, as a permanent continuance of similar conditions. The cause may operate either directly, upon parts immediately concerned in the performance of vital functions, or indirectly, by an interruption of essential nervous stimulus. The various organs are so closely allied in their mutual relations that any interference with the functions of one necessarily involves others. Whatever the immediate cause of death, it is almost invariably ushered in by coma. The word itself literally signifies sleep, and implies an absence of conscious sensation.

Prof. Metchnikoff, of the Pasteur Institute, in a recent work entitled "The Nature of Man," advances the theory that if we live as long as Nature intended, we develop what he styles an "instinct of death," and eventually lose desire to live longer. This view is corroborated by general experience. It is observed of very old men that, having largely outlived their capacity for physical enjoyment, they lose that dread of dissolution for which there is no longer any occasion, and face the thought of dying, as well as its actual occurrence, if not with positive pleasure, at least with resignation and equanimity. Death and sleep, aptly styled twin sisters, are closely related in the purpose they serve. The close of a long and active life resembles the approach of sleep, welcome because of an overpowering sense of weariness, and the exhausted body willingly lapses into final repose.

These partly theoretical views have been substantiated by the personal experience of the writer. It has fallen to his lot, as a medical examiner of pension claims, to read reports of those present at the death of many thousand veterans of our civil war, as to the apparent cause or causes of death and manner of its occurrence. The fatal result is generally found to have been hastened, if not directly caused, by wounds or disease incurred in service, with old age as a complicating factor, the latter appearing more frequently in recent years. The cases in which it is stated that such deaths have been peaceful and apparently painless have been found to outnumber all the others fully ten to one. It should be noted, too, in the exceptional instances, that convulsive struggles, labored respiration, and similar symptoms, which would ordinarily indicate distress, are without such significance, and usually of a reflex character when noticable at the close of life. The almost invariable testimony is to the effect that the end came peacefully, and

that it appeared to the surrounding family and friends of the dying soldier that he was passing into a quiet slumber.

There appear to be cases where physical suffering has continued to nearly the very close of life. Even in such cases, and it may be said especially in such cases, the end is welcomed as a relief.

From any point of view we can not imagine a greater misfortune than would be an indefinite continuance of existence in a worn-out body, its capacity for usefulness and enjoyment gone, and increasing feebleness, decrepitude and dependence its sole remaining assets.

A morbid repugnance, or dread, in relation to the disposal which may be made of one's dead body, is too obviously unreasonable to admit of serious consideration.

When the vital spark has fled, the body is no longer a part of ourselves any more than is a dwelling we formerly occupied. A sentiment of attachment, based upon past associations, may cling to both, but should not be allowed to so distort our mental vision as to displace reason. We know that with the departure of that intangible something called life, all that remains is but a combination of inert matter, which, in course of time separates into its ultimate constituents. Once again, in the endless cycle of material changes, we have become mere "clods of the valley," shortly to assume other forms, first of vegetable, and, later on, of animated being. Why shrink from the prospect of a future natural disintegration and evolution, which bear no relation to our present sentient being?

An impressive object lesson on this point is an exhibit in the chemical department of the National Museum, at Washington. A glass case contains, in appropriate receptacles, the exact equivalent components of a human body of the average weight of one hundred and fifty-four pounds. These appear divided into three groups, consisting of water, organic compounds (proteids, fats, and carbohydrates) and mineral or earthy substances. The greater part (about seventy per cent) consists of water, and the remainder of a variety of inert substances, with which all are almost equally familiar. Only this and nothing more.

Right here we are naturally confronted by the problem of man's spiritual nature, involving the momentous question whether his personality survives the dissolution of the body. But all this is foreign to the scope of the present article, and outside the domain of physiological investigation.

[Written for the MEDICAL BRIEF.]

Mechanical Vibration in Therapeutics.

BY SAMUEL S. WALLIAN, A. M., M. D.,
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[Third Paper.]

From the combined experience of many observers, the therapeutic possibilities of mechanical vibration may now be more confidently stated.

On the circulation it can be made to produce definite and apparently contradictory results. In other words, arterial tension can be either increased or diminished, according to the methods and intensity of application, and any given viscus or tissue can be made hyperemic or relieved of hyperemia, at will.

Again, the tension or activity of any special nerve center can be either increased or diminished, and dormant nerves, whether afferent or efferent, can be aroused and restored to normal function. Local congestion can be induced, and the same condition can be dispersed. Hyperesthetic nerves and areas of hyperesthesia can be quickly relieved, and all the vital processes, metabolism, nutrition, assimilation and elimination markedly accelerated.

Relying on these effects, clinical results abundantly corroborate the logical inference that vibration, intelligently applied, can be made to materially assist in reducing hypertrophies and discussing nearly all forms of neoplasms and morbid growths.

Since the Roentgen and ultra-violet rays are simply immeasurably rapid forms of vibratory motion, it follows that their action is a result of this motion. According to Sajous, the philosophy of the action of rapid vibratory impulses in destroying morbid tissues is thus explained:

They cause a local heat accumulation and congestion, which induces a rapid

and extensive immigration of nutrophile leucocytes, and these, through their phagocytic and fibrogenetic properties, convert the degenerated cellular elements into benign products.

Mechanical vibration, in a lesser degree, reaches the same results. It induces local hyperemia, a local increase of temperature, and a prompt influx of leucocytes and phagocytes, whence follows that process of phagocytic digestion which is Nature's method for the removal of abnormal or malignant growths and infiltrations.

It has long been known that manual manipulation or massage, is in many cases a valuable auxiliary in the treatment of these maladies, and it is easy to understand that by increasing the depth, force and frequency of the applied impulses, by mechanical means, the salutary effects are decidedly increased.

Control of the circulation, and concurrently of local heat production, explains the process and accounts for the results.

To go more into detail, superficial applications of mechanical vibration stimulate the cutaneous circulation, and promote the nutrition of the skin. Its secretions are stimulated, so that a previously harsh and dry skin becomes softer and more supple.

The induced increase in the force of the circulation, and the promotion of nutritive and eliminatory processes results in a perceptible increase in the number of red corpuscles and of hemoglobin.

Superficial applications also stimulate the lymphatics and absorbents, the value of which, in all morbid conditions, is self-suggestive.

I consider vibratory stimulation of the lymphatics and absorbents of the utmost value in connection with the use of the X-ray, ultra-violet ray, and high frequency currents, when treating malignant growths. With this combination I am convinced that some of the reported failures in the use of the X-ray could have been made successful.

By deep applications, the deep-seated nerve ganglia can be reached, and profoundly affected, and, as in case of superficial applications, the action of these ganglia may be either stimulated or inhibited, according to the length and intensity of the applications. In fact, the great field of mechanical vibration is in connection with these ganglia, and with the recognized trophic centers of the nervous system. Each of the spinal ganglia is a storage battery of vital electricity, and each is credited with presiding over some one function or process. When the ganglia radiating to, and in the main controlling any area or organ is stimulated, that particular organ or area responds. Of course, it is understood that many ganglia are closely interrelated, and thus provide auxiliary power, one for the other, in case of accident.

Omitting much that might be said concerning trophic centers, heat centers, nutritive centers, etc., a dormant or debilitated ganglia may be stimulated, and often fully restored to normal activity by an intelligent application of mechanical vibration.

Coming at once to the illustration and practical application of the treatment, the patellar reflex is an apt instance. It receives its impulse and is controlled by the second and third lumbar ganglia. This is merely an illustrative example.

To take up this line of study systematically, the brain may be reached and influenced by applications made over several pairs of ganglia, ranging from the second to the seventh dorsal. The eyes through the third cervical, and, to some extent, through the various centers as low as the fourth dorsal. Recent cases of ptosis of the eyelid have been promptly relieved by deep applications over the seat of the third cervical. The external ear is reached through the sixth cervical. The middle ear may be influenced by applications made from the second dorsal upward, as well as by applications to the front and sides of the neck.

In treating the throat, the applications are to be made by suitable "vibratodes" behind the rami of the inferior maxillary. In anemic conditions of the throat, these applications should be very light, so as to stimulate, while in congestive conditions deeper pressure will be more effective in disgorging the blood vessels, and dispersing the congestion. In acute and subacute pharyngitis and laryngitis, as encountered in professional singers, some very striking results can be obtained. In these

cases, vigorous stimulation of the lymphatics of the neck and axillary region, and also brisk stimulation of both the liver and spleen will add to the effectiveness and permanency of the treatment.

The heart is reached through various centers, all the way from the third cervical to the fourth dorsal. To affect the lungs, deep vibration is to be applied to the third, fourth, fifth and sixth dorsal centers. Alternate applications to the right and left fourth dorsal. To relax an obstructed pylorus, deep applications are to be made over the fourth dorsal on each side alternately, and to the solar plexus and pneumogastrics.

From the sixth to the ninth dorsal of the right side influence the liver, while the same pairs of the left side control the spleen.

The eighth dorsal is associated with the pancreas, to reach which the solar plexus should also be invoked. The latter more or less influences all the pelvic viscera.

Nausea, from the usual causes, can generally be relieved by vigorous but very transient vibration applied to the fourth dorsal of the left side.

When the pelvic organs are diseased or congested there will ordinarily be found one or more hyperesthetic points along the spine—the fifth lumbar and the eighth dorsal, more frequently than other points. In ovarian trouble, it will generally be found that the fifth lumbar and twelfth dorsal are directly involved.

As this paper does not aim at more than a mere outline of the subject, these brief sketches of the technic of treatment must suffice.

One general caution may be urged, namely, that the amateur operator is almost certain to overdo the treatment. As a rule, the applications must be very brief —not more than ten seconds at a time at one point. This is especially true when deep pressure is being applied.

As to machines, the market is now pretty well supplied, at prices ranging from $25 to $200.

As I have no personal axe to grind, I feel at liberty to speak with entire frankness. I have now used all the leading machines before the profession. Among the number many were evidently designed for the use of masseurs and barbers, and while they accomplish mechanical massage, they are of but little value for therapeutic purposes. Most machines are limited to one of two motions—oscillation or percussion. They either give a simple percussion blow, or they give a rubbing motion with slow strokes. This answers the purposes of the masseurs and barbers. The best machines combine oscillation with percussion, and have a rapid stroke —seven thousand to nine thousand per minute. The highest priced machine claims much for its "rigid arm." This loudly vaunted feature is not without its disadvantage. It secures arm-rigidity at the cost of universal adaptability. It delivers its stroke exclusively in a downward direction, which compels the patient to recline on a table or couch, whereas with the flexible-arm machines, applications may be made in any direction, the patient sitting, standing or reclining, as seems best. Although a preponderance of treatment will be given with the patient in the prone position, with muscles thoroughly relaxed, it is sometimes both convenient and important to be able to make applications to a sitting or standing subject.

Furthermore, this rigid-arm machine is cumbersome, ungraceful as an office fixture, and its price is entirely out of proportion to either its cost or its practical advantages. Equally effective apparatus can be had at less than half the price asked for this one. Some of the flexible-arm machines, on the other hand, are quite undesirable, imparting too much motion to the hand of the operator, spitting oil on the clothing of the patient, and easily getting out of order.

509 Fifth Avenue.

[Written for the MEDICAL BRIEF.]

Surgical Operations vs. Medication.

BY PITTS EDWIN HOWES, M. D.,
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The tendency of the day is toward specialties. The cry is that the specialist has more time to devote to his particular branch, and so can become more expert in that line. To a certain extent the statement is true. In the realm of med-

icine, however, such a statement has many elements of fallacy.

I once heard a celebrated surgeon make two assertions which have an important bearing upon our subject. They were these: "A man should practice general medicine ten years before adopting any specialty," and "It shows greater ability in a surgeon to know when not to cut than to operate."

These are important facts, and they are lost sight of to-day in too many cases. The prospective specialist, many times, selects his career before he even commences to study medicine, and all his energies are bent toward gaining knowledge along his particular line.

He forgets that man is a complex organism. That very many factors enter into the pleasurable performance of the functions of the various parts of the body. That the cause of failure in such a performance is just as complex. That in many cases the failure is produced by reflex conditions which are situated remotely from the place where the trouble is manifest. His education has taught him to look at every phase of impaired life through his own particular branch. He is constantly trying to solve all problems, which confront him, along his own lines.

The lack of practical knowledge—which is a result of not doing a general practice of medicine—has a tendency to make many of his deductions erroneous. Hence, instead of becoming a guide and a substantial aid to his professional brethren, he is apt to be a stumbling block, and lead them along wrong paths to their detriment and that of their patients.

Among the many specialties in medicine possibly there is none which is so attractive as that of surgery. The *éclat* which attends a brilliant surgical operation captivates the mind of the medical man in embryo, and leads to enthusiastic acceptance of this branch of the profession as his life work.

The would-be surgeon constantly attends the surgical clinics. He loses no opportunity to perfect himself along surgical lines. His close application makes him an adept in the handling of surgical implements. He longs for a chance to show his skill, and everything is fish which comes to his net.

Possibly there is no branch of surgery which presents so many chances for the ambitious surgeon as that which pertains to gynecology. Women, from their organization, are especially prone to mishaps which bring them as subjects to the surgical knife. The increase of surgical work in this department has been simply enormous in the past quarter of a century. We are constantly told of the wonderful operations which are being performed for the benefit of women, and their great success. Many times such success is only temporary, and the latter condition of the unfortunate victim is decidedly worse than that from which she was formerly subject.

The principal element of the truly great surgeon—to know when human health can be restored without the use of the knife—is lost sight of in far too many instances of latter-day surgery. This is especially true in gynecological practice.

Were our surgeons as thoroughly drilled in the correct application of the various agents of our grand *materia medica* as they are in the use of their cutting instruments, there would be many more reports of a radical cure without the knife than there is at the present time. Not only is this a fact, but much human misery would be blotted out which now is the result of reckless cutting.

How many laparotomies are performed which might have been avoided had the right medication been adopted? Were this question correctly answered, the reply would be simply astounding.

When will this state of affairs be remedied, and this useless mutilation cease? Not until more attention is given to the careful study of remedial agents of the vegetable kingdom, and the reputation of the surgeon depends upon the lasting results of his work rather than the brilliancy and success of the operation.

Our *materia medica* is wonderfully rich in agents well adapted to the curation of many of the difficulties which affect women. Among them may be mentioned caulophyllum, macrotys, helonias, pulsatilla, hydrastis, viburnum pruni,, viburnum op, michellæ repens, scutellaria, hyoscyamus, etc. There is not space in

this article to enter into the correct use of the various drugs named, but when they—and the class of remedies which they represent—are correctly understood and applied, the need for surgical interference, in the field of gynecology, will be lessened to a very great extent, and much practical good be done to suffering humanity.

I do not wish it to be understood that I deplore the department of surgery in the practice of medicine. I believe that it has, and should have, an important place to fulfill. All honor should be bestowed upon its legitimate field of action, and the beneficent results thereby attained.

Notwithstanding this, I firmly believe that surgical operations are many times performed which are not only needless but absolutely harmful in their results. The time is coming when surgeons will be held more closely to account for the result of their work than they are at the present time. When that day arrives they will be more careful to investigate all methods of cure before resorting to the knife.

[Written for the MEDICAL BRIEF.]

The Secret of Health and Its Possession.

BY AXEL EMIL GIBSON, M. D.,
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Back to Nature.—It is by sheer force of instinct that man again and again strikes out to regain the old trade winds of health and happiness in his evolutionary cruise. Back to simplicity and common sense; back to the sane and concrete, to decency and manhood in the art and science of living.

Yet the word back, in this relation is not to be taken in the sense of moving backward. No entity can retrace his steps in evolution and live—not more so than a thing of life and growth can reoccupy a mold which it has once outgrown. Back to Nature means rather to pause, to wait for Nature's summons, and to yield to her efforts to re-establish her seat in the council chambers of the mind. Gradually, and under the stress of recurring penalties, the individual will learn that there is no royal road to health. He will learn that action and reaction, cause and effect, are the governing forces of existence, and lie back of all true growth. To over-ride this law means to step out of the highway of life, and stumble along illegitimate paths of existence. Action and reaction are equal and inseparable, and the expenditure of vital energy involved in the former must reappear and reassert itself in the latter as an inevitable rebound.

Hence the futility in attempting to restore broken-down health by any other method than in undoing what has been done wrongly, and in doing what ought to have been done, but neglected, in our relation to Nature. Only one course is left open, a course which, by aiming at the re-establishment of a disturbed vital equilibrium, involves self-denials, proportionate to the gravity of the offense, and as offenses leading up to functional collapse generally consists in errors of diet —over-eating or wrong-eating—or in neglect to enter into vital touch with Nature through outdoor life, and in the proper exercise of lungs and muscles, etc., it follows that the restoration of health is possible only in adapting methods of living, involving a corrective of the blunders committed.

Offenses Against Nature.—One of the most serious offenses against Nature lies in over-eating. The human body, in one of its aspects, resembles a furnace, and like the latter must be supplied with fuel in order to generate heat. And as in the case of a furnace, the supply of fuel required for generating a proper amount of heat must be gauged by the degree of draught back of the combustion—so the human body depends for its healthy assimilation on the capacity and opportunity of the lungs to supply the physiological "draught" with its concomitant of oxygen. For the assimilation of food does not wholly depend on a good appetite, nor yet on a good digestion, but rather on the power of the lungs to supply an amount of oxygen sufficient to oxygenate the digested food-stuffs (chyle) transmitted by the agencies of assimilation into the bloodstream. Emptied by the thoracic duct into the vascular circulation, the chyle floats with the bloodstream into the heart, whence it is pumped into the lungs,

where it is brought into contact with the oxygen of the air-current, by the vitalizing touch of which its pale fluid is changed into the red color of the blood.

Gluttony, Suicide.—Now, if the chyle requires more oxygen than respiration makes available, *i. e.*, if the individual has taken more food into his body than he can assimilate, the oxygenation remains incomplete, while the mass, now rendered poisonous, is carried by the bloodstream to the different organs and tissues, finally to be eliminated through the several emunctories, principally the kidneys, as waste products—physiological ash. Thus after having brought the ingested food-stuffs through a series of complex and vitally exhaustive changes up to the final point of assimilation, and subsequent recompensation for the expenditure—Nature finds herself compelled to continue the ruinous economy by reversing the processes, and reduce the miscarried compounds into stages of elemental decomposition involving a constantly increased loss of vital power. Thus, like the crammed furnace, which in place of heat can only turn out smoke and half-burned ashes, the over-fed body in place of generating the vital fires of health and growth evolves nothing but the smoke and waste products of decomposition.

The breakdown of a glutton is only a matter of time, though an originally powerful constitution may successfully endure the imposed strain for a longer or shorter time. Yet signs of brooding disaster will soon make their appearance in his body. On the other hand, to associate a rounded-out, well-fed and well-poised physique with gluttony is a mistake, as the habitual glutton will soon lose his healthy appearance, and not infrequently in the course of his over-indulgence become reduced to a sickly-looking, hollow-cheeked, dull-eyed, drowsy and unprogressive individual. For, as in the course of his over-indulgence the expenses involved in his physiological industry exceed his income, he is likely to experience an embarrassment similar to that of the owner of an industry, the income of which is unequal to the expenditure involved in its operation.

In either case, the only sane and logical measure is to shut down the expense, which in the case of the body would mean to reduce the diet so as to bring it within the power of the system to assimilate it. A restricted diet, or, better still, a moderate length of fast, gives to the system a well-needed temporary rest, during which Nature may adjust deranged functions, build up broken-down structures, clean out congested organs, and remove old waste deposits from the muscles.

The Healing Power of Fasting.—The depth and permanence of the general tonic effect imparted to the system through a fast of some six or seven days' duration, surpasses any effect due to the action of drugs or electricity. Relieved by the fasting from the labors entailed by her daily routine of digestion, Nature can turn her attention to the condition of the structures themselves and proceed to weed out sediments and various waste-products deposited in the muscle-fibers and drainage tubes of the great vascular systems of the body. Extended long enough, and scientifically guided, fasting has even been found to remove malignant tumors. The armed police force, employed by Nature in the defence of the body—the phagocytes—are equipped with powers normally adequate to meet any invasion of alien microbes. And as any abnormal growth in the body arises from a failure of the phagocytes to properly defend their territory, it follows that any condition which relieves the strain of their routine labors, adds to their efficacy and success in fighting the common foe. Hence, fasting, by temporarily relieving the phagocytes from the guerilla war, continually waged against the minor foes of micro-organisms daily entering the system by way of impure air and food, provides a well-needed opportunity for this bodyguard to break down and expel the intrenchments which a more formidable and deep-seated foe in the form of ulcers, tumors, and promiscuous growths are constructing and maintaining in the vital tissues of the organism.

A case in point is at present in progress at the Deaconness Hospital, Los Angeles, Cal., where a patient, aged forty-eight, is suffering from the combined ailments of psoriasis and arthritis deformans, which,

in the course of time, have covered him with loathsome sores, while simultaneously a process of ankylosis has attacked and locked up every joint in his anatomy. His treatment in the hospital is limited to a course of fasting, which at present has extended over a period of twenty-eight days. The result up to date is in the highest degree gratifying. Already at the end of the tenth day the skeleton rapidly began to evince signs of movement, and at present every joint yields more or less to his will, while some of them—the toes and elbows—exceed in their power of movement half of the normal range. As the fasting is still in progress, though alleviated at present by some light form of liquid nourishment, such as koumiss, albumin and unfermented grapejuice, the final result is not yet in sight. From the present outlook, there are probabilities for a complete cure.

The Philosophy of Fasting.—The forces at work in this case are readily discerned. Unhampered by the routine work of digestion and assimilation, the bodyguard of defense—the leucocytes, phagocytes and lymphocytes—can devote themselves entirely to processes of elimination, and to dissolve and drain the congested and hardened tissues.

To the certain knowledge of the author, tumors of various kinds—even malignous—have been absorbed under conditions brought about by fasting. The rationale of this curative power in fasting lies in the fact that all tumors, being foreign growths, are the work of microbic invasions. But inasmuch as Nature under normal conditions is ever adequate to hold her own in defending the body against attacks of alien microbes, it follows that back of the possibility of such attacks must be found a derangement of functional activity, giving rise to malnutrition and general weakness. The bodyguard defeated, the victorious foe, after having intrenched himself in the conquered territory, proceeds to form centers or colonies of activity, with an organization all their own, while leveling a devitalizing tribute on the body commonwealth for support.

Tumors: Physiological Anarchy—How to Restore Order.—Such a humiliating state of vassalage can exist only as long as the bodily system remains under the strain and stress of some influence or condition preventing the protective cells from offering adequate resistance to the attacking microbes, conditions which in the generality of cases spring from too arduous labors in the fields of digestion and assimilation. For, in a system overloaded with food, the cells engaged in offices of secretions and excretions are too busy in eliminating specific waste-products from the output of an overcharged and unceasingly protracted digestion, to find time and opportunity for the federal work involved in the general defence of the body against microbic invasions. The peril arising from an accumulation of waste-products with the inevitable output of poisonous substances, is more immediately threatening to existence than the more distant peril involved in the slow pathological changes brought about through the work of an already established and tolerated foe.

In the light of these observations it follows that any respite from the pressure of daily routine work as represented in digestion and assimilation, tends to provide time and opportunity for the defensive micro-organisms of the body to concentrate their forces on any specific point of suffering from a parasitic attack—a procedure which forms the therapeutic reason for all systematic fasting, and for the almost miraculous results accompanying this sovereign of all methods of elimination. But a fast, in order to effect the removal of all tumors or any other deep-seated specific evil, must extend at least over a period of twenty days, and proceed under the direction of some person capable of administering intelligently to any emergency that may arise.

Appetite Versus Digestion.—But even outside the power of removing specific maladies, fasting has a great general therapeutic value. As a purgative for a systematic and thorough cleaning out of the alimentary canal, a few days of fasting has no equal. In view of our present artificial mode of living, when normal appetite has given way to craving, and real hunger—the only reliable counsellor in matters of eating—has become an almost unknown and unfelt quality, it is

inevitable that there should arise grave complications in the process of digestion and assimilation. Under the strain of a bill of fare aiming more at gustatory development than the strengthening of digestive and assimilative functions, the latter are utterly inadequate to meet the insane demands of a disproportionately developed appetite. Yielding to the dictates of this monster appetite, the individual loses his sense of physiological balance, and crowds more nourishment into his system than the latter can utilize. The organs of elimination—liver, kidneys, lungs, skin—failing to dispose of the continually multiplying waste-material, must suffer it to remain in the blood, whence it is deposited in the muscle bundles, and various tissues of viscera and organs. The result may either manifest in a specific character, or in a general lessening of tonic and functional vigor, leading to a final structural breakdown in the form of diabetes, Bright's disease (interstitial nephritis), apoplexy, etc., or in a sudden attack of alien micro-organisms with the corresponding development of some acute disease, viz., pneumonia, typhoid, la grippe, acute yellow atrophy, etc.

Scavengers in the Human Body.—Aside from these more serious issues, the continued accumulations of waste products from an overtaxed assimilation will call into operation a law governing the general assets and liabilities involved in natural evolution. A carcass thrown on the field will presently become the breeding place for myriads of maggots, which in the scheme of an ever-present, evolutionary provision seem to be commissioned to transform decaying substances into compounds more available to Nature's economy.

The mass thus accumulated from a miscarried assimilation meets the same fate as the putrefying carcass on the field. The tissues in the over-fed body, under the strain of the same law, proceed to breed countless hosts of maggots, which may henceforth take up headquarters in the body as permanent parasites, with a subsequent weakening and final breaking down of every function, if the disorder remains unchecked.

In this big appetite and craving governed era, the number of maggot-breeding people must, indeed, be appalling. Kidney, liver and intestines are the haunts, *par preference*, for these representatives of bodily decay. The remedy is invariably and infallibly the same: a grand cleaning process through the eliminating action of a few days' fasting, followed up by a mode of living more aiming at a strengthening of digestion than of appetite, hunger in place of craving, and positive need and necessity, in place of gustatory fits and notions.

In infinite degrees of expression and power, this scavenger work extends throughout the entire system, involving every tissue showing tendency to breakdown. And while the workers in this great and ingenious system of Nature's house cleaning may descend in the sliding scale of life from the visible to the invisible, from gross maggots and vermins to micro-organisms, bacilli and bacteria, the principle of the back work remains unchanged. The formidable undermining of the human organism, as represented in the ghostly spectacle of pulmonary consumption, is an impressive illustration of the principle at work in this at once horrifying and salutary nature—process through which the economic balance of the universe is maintained. For the onslaught of the tireless microbe, however terrifying the result wrought in the involved tissues, is itself harmless and beneficial—in fact, constitutes a guaranty for a continuation of ascending life. The principle at work in this at once horrifying and admirable process is revealed in the fact that the decay of the tissue is not due to the presence of the microbes, but, on the contrary, the presence of microbes is due to the decay of the tissue. And as the destructive work of the microbe depends for its progress on a native weakening of the constructive power of the system, it follows that a strengthening of the latter means a corresponding weakening of the former. Hence, in relation to health, the microbe represents a passive force, which must be invited by suitable, *i. e.*, pathologic conditions, in order to find a field to enter. Any attitude of healing, aiming at the mere destruction of the microbes is entirely misplaced, and possesses no more truly scientific value for the establishment of health than the

chasing away of carrion birds from the carcass prevents the latter from decay and corruption.

Microbes are evolutionary agents, and their work is as much in conformity with the laws of life and existence as the action of the phagocytes and lymphocytes in their work of defending the integrity of the physical body. The offence is to be sought for in the diseased entity, who by violating a natural law invokes forces which for the restoration of a disturbed cosmic balance have become inevitable. For inasmuch as man is a part of the whole, enjoying the protection which arises from cosmic order, it likewise follows that through his personal, lawless indulgences the balance of the universe may be disturbed, a disturbance which can find its restoration only in following up and equalizing the disintegrating influence until it finds its functional level—the individual body. If the balance of the universe should be affected to a degree that its return to equilibrium could proceed only through a sweep of force-currents involving the destruction of the organism in which the disturbance had its seat, the issue would be death to that organism.

(To be continued.)

[Written for the MEDICAL BRIEF.]

Asthma.

BY J. H. JERGESEN, M. D.,
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[Paper No. 1.]

A physician can never be placed in a more distressing position than when he is called to relieve an asthmatic in one of his paroxysms. At first, everything and anything he does to relieve seems to aggravate his condition, His suffering is so great that one hesitates to suggest remedies. Seemingly, a patient in an asthmatic paroxysm suffers more agony by his efforts to escape suffocation than well could be equalled by any bodily pain. A physician looking on, while an asthmatic suffers the horrors of suffocation, his face bathed in cold sweat, his eyes bulging, his mouth open, and the muscles of his face distorted, can not feel indifferent in his presence, but seems to be seized with an impulse of acting or assisting in acting his part. In bodily pains a patient can groan, shift, try to ease himself by moving, rubbing and pressure, and in all the other ways a sufferer has whereby momentary ease might be obtained.

A patient in a paroxysm of asthma sets as if he was placed in a vice, unable to move, or speak or even make a sign; the least exertions aggravate the condition the minute they are thought of. The muscles of the face are set in intense anxiety and rigid. Cold perspiration bathes his forehead.

It has been my lot to see quite a number of patients in a paroxysm of asthma, and I have come to fear the night calls to asthmatics. To see them struggle for breath affects me sympathetically as nothing else does. Often I have felt as if I was taking part in their suffering.

The condition one observes in a typical asthmatic paroxysm are nearly as follows:

On entering the sick chamber I observed an elderly man (aged forty-five) sitting in an arm-chair, undressed; a woman's shawl thrown over his shoulders. In the room with him was a woman (his wife), crying and lamenting profusely. Said she: "My husband has had asthma for twenty years, but never has he been as bad as this morning, and I am afraid he will not live through it." Now this is the tale that will always be poured into your ears; the last spell is always, they think, the worst on record.

Observing him from a distance, because he could not endure to have any one come near him, I noted that he, indeed, struggled terribly for breath, and was by far the worst case I had ever seen.

He sat there rigid, unable to move; barely moved his eyes in my direction, clutching at the arms of his chair, his eyes wide open and bulging, his nostrils dilated, his mouth partly open, his head thrown back, his shoulders raised to nearly the level of his ears. With every inspiration he would move his head back, and with every expiration his head would sink forwards, as if he was so deadly tired and his exhaustion so great that, life or death, come what may, he was not able to draw another breath.

His hands, arms, feet and legs were icy cold and wet from perspiration; they looked bluish, shrunken and dead-like. His pulse was very rapid and so small that I was unable to count it. At the end of the paroxysm, when the pulse had become strong enough to be counted, it was one hundred and forty per minute.

The muscular effort and the terrible strain he was put to was displayed to great advantage by observing his body. I dare say there was not a muscle in his whole trunk that was not rigid and set, and had become accessories to inspiration. The muscles and especially the trapezins and sterno-clerdo-mastoid, stood out like cords forming the occipital triangle into a deep cavity.

All the muscles passing from the head to the shoulders, clavicles and ribs, were rigid and set. The head was made a fixed point from which they could act on their respiratory attachments. Ordinarily, such muscles as the splenii and scalenii have their origin or fixed point at their inferior attachment, and their action, as we know, are to move the head and neck; but in this case their superior attachments were fixed and from them they acted as mediate and immediate elevators of the ribs, and thereby assisting in distending the thoracic cavity. Even the omohyoid and thyrohyoid, whose superior attachments are at the hyoid bone, and because of its floating character can not be used as accessory respiratory muscles; but, anyhow, they are seen at each respiratory effort to contract, but instead of helping to raise the thoracic frame they only succeed in pulling down the hyoid bone and consequently through the geniohyoid and geniohyoglossus depresses the lower jaw, which gives the patient the attitude as if he was gasping for breath. The action of the omohyoids are to assist the platysma myoides in preventing the integuments in the neck from being drawn into the chest cavity under prolonged suction or in a condition, as in asthma.

On the other hand we must be thankful to Nature that this is so. Without this compensative effort of Nature it would, indeed, be a discouraging profession to practice medicine.

But with all this strain and force that was put on all these accessory muscles all seemed to be of no avail. The chest was expanded more than three inches over his normal chest measure. The lungs were enormously expanded, but unable to collapse and it seemed impossible that air enough could be squeezed out that an expansion could be noticed in the next inspiration. The chest was in a continuous expansion, without the corresponding collapse or depression; the chest remained nearly still and motionless; its walls were fixed and hard and remained as in a vice, full of air, but because of its rigidity, unable to exhale it. The muscles, as we have seen, all contracted and cord-like, held the chest rigid and expanded, as in extreme inspiration. The clothes that ordinarily fitted him could not be brought together by more than three inches.

Ordinarily, in health, inspiration is longer than expiration, but in this case expiration is much the longest, and expiration, instead of being a short, gentle collapse, is an abnormal, long, wheezing and straining productless effort, by which the air is slowly and painfully driven out of the lungs. The terrible strain under which this is carried on is seen to advantage in his eyes, which, under each expiratory effort bulged forward in their sockets.

Inspiration is, seemingly, comparatively easy, but whereas expiration was productless, no pulmonary collapse occurred; therefore, inspiration, if it shall not end in asphyxia, must be acomplished somehow, and so a seemingly final and last effort at expansion of the chest wall by respiratory muscles and their accessories are produced, with the result as before stated, that each succeeding inspiration the chest and lungs are a little more expanded to give room for just a little more air than was driven from the lungs, until at last the air cells in the lungs give way and the condition known as emphysema is the result.

Under auscultation the ordinary respiratory murmurs are absent; but instead we find what one aptly has called, "the full orchestra of tube sounds," of every pitch and note, sonorous and sibulant rhonchis, could be heard in great profusion over the whole thoracic walls. The sibilant being far in excess of all other sounds, sometimes resembling the chirping of a bird

and then again the sounds would be like the squeaking of a nest of little mice; when all at once they would become subdued and resemble the mewing and purring of a kitten; then again become whistle-like and so shrill and intense that one could hardly endure to listen. That was the case when I first applied the stethoscope over the apex lung, but they soon changed locality and were heard about two inches further down and at the apex nothing was heard. These sounds would move from place to place and change in pitch as they moved, from the highest to the lowest key. In this way one might station the stethoscope and in the course of one minute hear all the sounds struck on the key-board, so would the sounds and site change in the most remarkable manner.

The next observed, of any note, was the great quantity of clear, limpid urine of a very low specific gravity that was passed in the three hours the paroxysm lasted.

The first sign that paroxysm was abating was the gaining in strength of the pulse; it became more prominent at the wrist, the cold, clamminess of the skin disappeared, and gave place to a dry and warm feeling. The duskiness or bluish pallor changed to a clear and natural pallor, very soon the rigidity of the most prominent muscles of the neck, such as the sterno-cleido-mastoid and trapezins, relaxed, and his head moved somewhat forward; the shoulders were released and lowered. Soon he raised his hand and leaning his head against it, drew a deep sigh, which provoked an effort at coughing. In a few minutes he coughed and raised a pellet of mucus.

About fifteen minutes from the time I first noticed the increase in strength of his pulse it had become full and vigorous. His forehead was dry, his skin warm, his eyes and mouth closed, he was breathing through his nose. Soon his weariness and exhaustion gave way to a fitful and restless sleep, which, however, within half an hour changed to a sound and refreshing sleep.

The urine he passed during the night amounted to fifty-five ounces, clear and limpid, of a specific gravity of 1008.

In this case, as in several other cases, I have been able to verify Dr. Salter's (London) original discovery of a phenomena seen in asthmatics, namely, the itching of the chin. Dr. Salter does not attempt an explanation of this symptom, but merely states it as a fact. This case was very pronounced in itching of the chin. He would seemingly become more uneasy, and swing his head from side to side, as one might do if he wished to rub his chin when his hands were engaged. He would not think of taking his hands from the arms of the chair which he was clutching with all his power, but suddenly he would let go the chair and reach up and rub his chin. On several occasions while his paroxysm was the worst, he had to abandon the attempts, his hand would be raised midway and drop back and clutch the chair tighter than before. If, however, he was successful in reaching his chin and giving it a good rub it seemed as if he was greatly relieved. Questioning him afterwards about it, he did not know that he had done so. One patient in whom I also observed the rubbing of chin, claimed that it gave him immense relief to rub his chin, but I observed that the relief consisted more therein that he afterwards was able to give his undivided attention to his respiratory difficulty and not from any direct relief obtained in that way.

735 Third Street.

[Written for the MEDICAL BRIEF.]

Stillingia Sylvatica—Stillingin.

BY V. A. BAKER, M. D.,
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In the practice of physic covering an experience of many years, I have found no more reliable alterative than stillingia sylvatica, provided, and this proviso must be respected, viz., it must be gathered at the right time, and prepared in the right way, or it will disappoint when tested for its alterant effect. The dried root is feeble in action, no matter how nicely prepared, and the fresh root is but little better, if subject to heat, as boiling renders it nearly inert.

Formerly I prepared my own remedies largely by tincture made from the fresh

plant, after having an experience with the dried root, and failing to get satisfaction. I prepared the fresh root, using eight ounces of same to one pint of alcohol, using from five to twenty-five drops, as age and condition of patient required.

I have used the active principle, so called, as may be purchased in the market labeled stillingin; have tried that made by different houses; patient investigation compelling me to say it is worthless as an alterative. For a number of years past I have used it *specifically* prepared, and as it does not disappoint me in effect, can recommend it to my brother practitioners with confidence in all cachetic conditions, in syphilis, and depraved physical conditions.

I have just dismissed a patient, sixty-five years of age, who had been subject for a number of years to pereostitis, at times severe; nodes had formed on different parts of the body, and furunculous developments had caused him no end of trouble; irritable ulcer of tibial region, headache and concomitant symptoms. This man had no history of syphilis, but stated that it followed ivy poisoning, which was severe at times. He had been doctored and doctored, as he expressed it, and failing to get relief had tried the most extensively advertised patent medicines, with no permanent benefit.

I prescribed the following:

℞ Stillingia, Specific Tincture.....4 ounces.
Rumex Crispus, Spec. Tr. .....4 ounces.
Arctium Lappa, Spec. Tr. .....4 ounces.
Gentian Elixir and Glycerine—
equal parts .....4 ounces.

Making in all a sixteen ounce mixture, he residing some distance from the city being the reason of so large a quantity at a time. I ordered of this a dessertspoonful before meals and at bedtime.

The ulcer was treated with oxide of zinc, one part, and powdered starch three parts, well mixed, and applied directly to sore, and suitably bandaged; dressing reapplied as indicated, two to three times daily, no water being used.

The patient, after four months' treatment, is well.

In the treatment of all depraved conditions of the system, I restrict patient as to diet, interdicting coffee, beer and tobacco, while under treatment, and the advice, when heeded, yields gratifying results in connection with suitable treatment in all chronic diseases.

A word in conclusion regarding the stillingin, a thorough testing of which assures me of its worthlessness, but of specifically prepared stillingia sylvatica, I have looked in vain for its equal in all systemic conditions requiring promptness and certainty of effect it is without a peer.

[Written for the MEDICAL BRIEF.]

Suprapubic Prostatectomy.

BY M. R. BARKER, M. S., M. D.,
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In previous articles we have discussed, at some length, the subject of perineal prostatectomy. In these articles we have not alluded to the subject of suprapubic prostatectomy, preferring to make that the subject of a paper, and thus, by keeping the discussion of these subjects separate, enhance the effort to elucidate both, rather than risk obscuring both by discussing them together.

That suprapubic prostatectomy has a legitimate place in the surgery of the prostate, and is sometimes the operation of choice, there is no question. Its distinctive claim to this place is the time saved in doing it. Further than this, its advocates have established no claim for its preferment, in any case, over the perineal route. We have used the term established here advisedly. We know that other claims have been made in support of this operation. For instance: It is claimed by some that a smaller per cent of impotency follows this operation than follows the perineal operation. (I wish to call attention to the difference between impotency and sterility.) This claim, however, has not been established, and in my judgment, can not be. But, if future work does establish this claim, the scope of this operation will be greatly extended, for this operation will then take precedence where the question of impotency is the controlling one, as well as in that class of cases where time is the important feature in choosing the method of operating. But, as before stated, time is the only established element in this operation which ever gives it preferment, at the

present time, over the perineal route. Hence, in discussing this operation, we must limit ourselves to that class of cases in which time is one of the important elements in selecting the method of operating. The class of cases in which this operation seems to be indicated, is that in which the patients are feeble and unable to stand the more protracted perineal route, and in which the patients can not stand the usual, general anesthesias, nor sufficient local anesthesia to do the perineal work. It will not do, however, to put all who are feeble in this category, but a differentiation must be made, based upon the cause and degree of feebleness. Feebleness, due to senility, might or might not place the patient in this class, depending upon the degree of feebleness. If the patient is so feeble that the time to do the perineal work would hazard his life at all, the suprapubic operation must be the one of choice; but, if the degree of feebleness is such as to justify the perineal operation and escape the disagreeable conditions that are imposed by the suprapubic operation, the perineal work should be chosen. The judgment of the surgeon must here decide. We wish, however, to make a very broad distinction between senility and old age. By senility we mean old age manifested by physical and mental weakness and decay. The man of sixty may be senile, while the man of eighty does not possess a symptom of it.

If the patient is feeble because of a septic condition of the bladder, and from the absorption of pus-ladened residual urine alone, and the bladder is accessible for treatment by means of a catheter through the urethra, this operation would not be indicated, nor would any other, until the cause of the feebleness had been removed by properly treating the patient and his bladder until well. Then the perineal operation would be the one of choice, in all probability, as the feebleness would disappear when the infected bladder was relieved. If, however, the bladder was not accessible for treatment by means of a catheter through the urethra, which is the case in a certain per cent of these infected cases, and we were compelled to do a suprapubic cystotomy, in order to treat the bladder, we would remove the prostate through this incision, at a later time, provided some condition did not arise to contra-indicate it.

We do not wish to convey the idea that in all cases where the catheter can not be passed into the bladder, through the whole length of the urethra, in these infected cases, and the bladder treated through this catheter, we would do a suprapubic cystotomy from choice, and treat the bladder through that incision. We have stated: If we were compelled to do a suprapubic cystotomy, etc. There are cases so feeble, by the constant absorption of septic matter, for a long period of time, that a general anesthesia could not be thought of at all, and enough local anesthesia, to render a perineal operation for drainage and treatment of the bladder possible, would probably be fatal, when the patient could stand sufficient local anesthesia to do a suprapubic cystotomy.

Hence, in this class of cases, we are literally compelled to abandon the perineal route, which is the best method of draining and treating the bladder in these cases, previous to operation, when the catheter can not be used. In such cases we would remove the prostate through the suprapubic incision, if conditions did not arise contra-indicating it.

While it might be justifiable in some cases to remove the prostate by the perineal operation, during an infection of the bladder, for reasons of the superior advantages this route affords for drainage and treatment, such a procedure would be open to righteous criticism, through the suprapubic route, by reason of the inadequate means afforded by it for proper drainage and treatment, not only of the infected bladder, but also the wounded tissues from which the gland has been removed, and to which the infection is sure to spread. Hence, for these reasons, a case could hardly arise wherein one would be justified in removing the prostate, suprapubically, in the presence of an infected bladder. There is also danger of infecting the abdominal wound by draining the infected bladder through it. This is obvious. It is not hard to understand the disagreeable position of the surgeon, and the danger to the patient, by reason of an infected abdominal wound, the source of which can not be stopped until

the bladder is well, and the bladder will not get well, for it, in turn, is infected from the abdominal wound. Thus a vicious circle of infection is set up that taxes both surgeon and patient to the extreme, if it does not destroy the life of the patient. It is true that this condition does not always follow drainage and treatment of an infected bladder through a suprapubic incision, but it does follow in quite a large per cent of cases. Hence the statement that we would remove the prostate, through the suprapubic incision, later, if conditions did not arise to contra-indicate it. In septic cases, then, the suprapubic route, for prostatectomy, is a very poor dernier resort.

Feebleness due to other disease conditions: For instance, diabetes, nephritis, organic heart disease, arteriosclerosis, etc. When such conditions complicate, suprapubic prostatectomy is frequently the operation of choice. It can be done in so short a time that nitrous oxide gas may be given as the anesthetic, provided it is not wise to use the usual anesthetics. We believe this is eminently the legitimate field for this operation. In patients so feeble that it would be risking too much to attempt the usual anesthetics, we can adopt this operation and use the nitrous oxide gas, and thus bring the benefits of this operation to many who otherwise must be deprived of them.

It may be urged that if these old patients are so feeble, from complicating conditions, that it is dangerous to administer the usual anesthetics, why attempt to do anything? Make them as comfortable as possible, and let them die. Our mission is to ameliorate suffering and to save life. It is not for us to discriminate. Whether the patient is an octogenarian, or a babe in its mother's arms, our duty does not change. Our position towards our patient does not change because of complications that make our work more difficult. If there is a way pointed out, which has been successfully followed in such cases, and we know a very large per cent of the patients who have pursued it have been greatly benefited if not cured, it is our duty to point this way out to them. The complications may be caused by the conditions produced by the diseased prostate, and when these are removed, the complications may disappear, strength and courage return to the patients, and a score of years may be added to many useful lives. There is hardly a prostatic, suffering with almost any combination of diseased conditions, that cannot have the benefits of this operation. Hence, we repeat, suprapubic prostatectomy has a legitimate and an important place in the surgery of the prostate.

This question might arise: If this operation can be successfully used with the feeble, non-infectious cases, why not use it in all clean cases, whether feeble or not? We do not use it in all clean cases because of some disagreeable things which follow it. Among these we may mention, as the most prominent, the fistulous opening that continues so long after the operation. This is not a specially dangerous condition, but is extremely annoying. These fistulæ do not close, in a majority of cases, for from sixty to ninety days, and sometimes even longer. Why are they so long in closing? After removing the prostate, a drainage tube must be kept in the bladder, siphoning the urine out as fast as it runs in, until the wound, caused by the removal of the prostate, has healed.

If this is not done, extravasation of urine will take place, through this wound, and infiltration of the paravesical tissues results. It does not require the same length of time for the wounded tissues at the neck of the bladder to heal, in all cases, but it requires a good deal of time, in every case, from twenty to thirty days on an average. Then the tube is removed, and the fistula is left to heal as quickly as Nature, in each case, will do it. But Nature does not always hurry these matters as rapidly as the patient would wish, and a month or six weeks, or perhaps a little longer time, elapses before the case is through.

A month or so of dribbling urine while the tube is in place, and a month or so of dribbling urine after the tube is removed. Most patients become disgusted with the dribbling urine, and most surgeons tired of the dribbling patient, before the last dribble has dribbled away. Hence, the element of time that is saved to the patient by this operation in doing the work, is more than over-balanced by this dis-

agreeable feature if the patient is able to stand the perineal operation.

As stated in a previous article, I have been able to avoid a perineal fistula by using a catheter, passed through the penis into the bladder, and changed daily for a sterile one, continuing this for two or three weeks. Then, when the catheter is removed, the urine passes away by the natural channel. Hence, this disagreeable after-feature is shortened very much by doing the perineal operation.

Technic of suprapubic prostatectomy. The patient is prepared as for a laparotomy. A catheter is passed through the penis into the bladder, and the bladder thoroughly cleansed by some antiseptic solution which is allowed to escape. The bladder is then filled with warm sterile water until the patient complains some of the pressure. The catheter is now either tied in a knot or plugged tightly so that the water can not escape through it, and a rubber band is placed around the penis so that the water can not escape through the urethra outside of the catheter.

The patient is placed on the operating table, and every detail is ready for doing the operation before the administration of gas is commenced. The surgeon and assistants are in their places. The instruments are ready, and every detail carefully attended to. The patient is put into the Trendelenburg position, while the surgeon is opening the abdomen through the prevesical space. One minute is sufficient to expose the bladder. Two stitches, to be used as tractors, are now placed through the wall of the bladder, parallel to each other, their ends left long and clamped with forceps. These are used to help manipulate the bladder during the work. The bladder wall is opened between these stitches for about two inches. The water is now pressed out of the bladder by depressing the abdominal wall. One minute of time is sufficient for all this. The catheter in the urethra is a guide to the neck of the bladder.

The surgeon now, with the point of the scissors or a knife, makes an incision either at the right or the left of the mouth of the urethra, extending through the wall of the bladder to the prostate, and long enough to admit one or two fingers. The fingers are now swept around the gland, as rapidly as possible, breaking up adhesions, and completing the enucleation. The whole hand will have to be introduced into the bladder. The bladder wall will stretch sufficiently to allow this with a two inch incision. This will require two or three minutes of time. From five to seven minutes, from the time the first incision in the abdominal wall is made until the prostate is enucleated, are necessary.

The pocket from which the prostate was removed, is now packed with gauze, one end of which protrudes through the abdominal incision. A drainage tube is placed in the bladder in the most dependent portion, one end extending out through the abdominal incision. The bladder wall is closed, as far as the drainage tube, with fine interrupted silk sutures, care being taken not to pass these sutures through the mucous membrane of the bladder. The abdominal wound is closed, as in a laparotomy, with drainage. The abdomen is dressed and the patient put to bed. The drainage tube is connected with a receptacle beside the bed by means of a long rubber tube. The packing in the bladder is removed in twenty-four hours. Large quantities of water should be given the patient. The patient should have a back rest the second day, and be out of bed on the fourth or fifth day.

4625 Greenwood Avenue.

[Written for the MEDICAL BRIEF.]

The First Baby.

There ain't no use in talkin',
The crops are lookin' fine;
An' nary farm around us looks
As nice as that o' mine.

The wheat is holdin' up its head,
The hay is in the mow;
The pastur' lot is full o' grass
To feed the brindle cow—

That had twin calves las' April—
They're doin' mighty fine;
An' everything is boomin' on
That little farm o' mine.

An' as fer me, I'm happy—
You bet my heart is light,
Fer the doctor brought a baby
'Bout ten o'clock las' night.

—L. A. LONG, Editor The Argus Publishing Co., Hillsboro, Ore.

[Written for the MEDICAL BRIEF.]

Intestinal Surgery.

BY DRS. PENNEBAKER AND TRIPP,
Pleasant Hill, Ky.

At the present day of better diagnosis and competent surgery, under the heading emergencies, certainly are to be included operations upon the enteron.

Intestinal ulceration is a pathological condition that frequently can be recognized, and is at times as amenable to surgical treatment, when perforation or hemorrhage occurs, as is extra-uterine pregnancy.

A patient suffered for six months with agonizing pain and sickness, which was diagnosticated duodenal ulcer; the last attack proved fatal. At the *post-mortem* examination, the abdomen was found filled with fetid gas, and about two quarts of brown, turbid fluid, with yellow shreds abounding. Upon raising the transverse colon, a round perforation one-half inch in diameter was discovered in the duodenum.

In seven cases, ulcer of the duodenum was diagnosticated during life; four died as the result of perforation, and one from hemorrhage. Perforation is more common in ulcers of the duodenum than in ulcers of the stomach. Wm. H. Thompson says that an ulcer in the male would point to the duodenum, and in the female to the stomach.

The accumulation of free gas in the peritoneal cavity is given as an evidence of perforative peritonitis, but this symptom is occasionally absent.

Perforation of the typhoid ulcer can be recognized generally at the time of its occurrence.

A man who had been sick eight days, suddenly experienced agonizing abdominal pain, followed by a drop of temperature, which later rose; the abdomen became greatly distended. He was operated upon two and one-half hours from the onset of the pain. A small opening was found, eighteen inches from the cecum, which was closed, and the cavity irrigated with sterilized water, and the wound brought into apposition without drainage. The patient died in thirty-six hours from septic pneumonia, due to the inspiration of vomited matter.

Perforative peritonitis has been reported in an infant three days old, the opening in the gut being the size of a pea, and situated at the junction of the jejunum and ileum. The author described the cause of the ulceration as a strangulation of Meckel's diverticulum.

The duedonum has been perforated by a round worm, peritonitis and death following. The patient was a girl thirteen years old.

The clinical picture of traumatic rupture of the nutrient tube is graphically rendered by Dr. McMurtry, in his report of traumatic rupture of the duodenum, caused by a kick by a horse. The accident occurred directly after the man had eaten a full meal, he being seen fifteen minutes later. He was rolling in most intense agony, pain being referred to the umbilical region, and he presented a full array of the symptoms of shock. He was never free from pain, dying in nineteen hours. There was no abdominal swelling before death, and the bladder had expelled urine twice.

At the *post-mortem* section, a rent in the duodenum was found two inches from the pylorus, through which the fingers could be introduced. The meal he had eaten was in the abdominal cavity.

If evidence of rupture exists, immediate operation is indicated; if soon after the injury, twenty-four to thirty hours, there are signs of sepsis, operation is contra-indicated, and a low temperature with constitutional symptoms is unfavorable. Rupture of the enteron is indicated by absence of the line of dullness, frequent and uncontrollable vomiting, and the appearance of peritonitis if lesions of the kidneys, bladder and spleen are excluded.

In wounds of the stomach and intestines, the use of gas alone reduces the time required in seeking for a perforation at least seventy-five per cent, and with the addition of an antiseptic solution the time can be reduced ninety per cent.

Abdominal wounds in time of war, excluding those who die during the first twenty-four hours, tabulated under the form of penetrating wounds, are amenable to surgical treatment; about sixty per

cent recover. These cases are generally so injured that the area of the small intestine is not crossed; when this region is traversed, the mortality is very great.

Without an exploratory operation, we too often can not diagnose perforative wounds, and while laparotomy is not justifiable in every case of penetrating wound, it should be made upon the first evidence of this accident having occurred.

In the Spanish-American war, Senn reported that all patients who were operated upon died; during the Boer war in Africa, only two successful operations for wounds of the intestine have been reported. In the Philippines, Dr. Robinson reported five operated upon, and four died.

In traumatic cases of perforative peritonitis, it is proper to make a resection of the intestine, if necessary; in pathological cases the operation of resection will depend upon individual conditions, the treatment being analogous to gangrenous hernia in deciding if immediate closure of the bowel be done. The gangrenous intestine necessitates resection, and direct closure or an artificial anus. Bowel fistulæ generally heal, but it is dangerous to free old adhesions and unite old wounds.

There are cases that may have half of the bowel slough away and yet recover. Three feet of the intestine came away from a child per rectum, and the child lived. While such cases occur, surgical practice is not to be guided by them.

The surgeon should never leave the room until the hernia is reduced by natural means or by the assistance of the knife. No surgeon in the land should delay the relief of strangulated hernia after fecal vomiting has supervened. There has not been reported a case in which recovery occurred when fecal vomiting had lasted over twenty-four hours. Such cases call for a prompt diagnosis, the withholding of opium, and an exploratory operation.

The experiments of Curtis show that the distension of the strangulated loop is not due to gas, and the intestinal contents forced into the knuckle from the proximal side, but principally to disturbances of the circulation in the intestinal wall.

In hernia with gangrene, it is safer to first make an artificial anus, afterwards resecting and restoring the continuity of the gut.

Diaphragmatic hernia is of interest, owing to the mechanism of possible strangulation, and complications arising therefrom affecting the thoracic viscera. The elasticity of the orifices in the diaphragm permit the passage of organs of enormous disproportionate volume and size. Once a hernia is established, adhesions may unite the circumference of the ring to the organ, predisposing to incarceration. The strangulation of these hernia not only endangers intestinal obstruction, but exposes the patient to serious disorders of the thoracic organs, as compression of the lungs or heart, infection of the pericardium, pleura, etc. In Poucet's case, perforation of the colon determined the formation of a true fecal empyema.

The tissue surrounding the margin of a ventral hernia is never so firm or strong as normal tissue, and to secure firm union, it must be excised. Ventral hernia may occur in any case after laparotomy when the deep fascia is not held together until it unites firmly.

Atropia has been extolled in the treatment of incarcerated hernia, spontaneous reduction occurring; relief from pain follows almost immediately, and as well, improvement in the general condition.

Its mode of action probably varies, intestinal peristalsis being increased. The blood vessels involved in the incarceration are contracted, and the muscular structures surrounding the opening in the abdominal wall are made more lax. The use of this remedy should be substituted for taxus, but not where herniotomy is required.

In a girl of seventeen years, who was tuberculous, symptoms of intestinal obstruction appeared. For the relief of this, three and one-half feet of the ileum were resected. On examination of the excised bowel four distinct strictures were found. Indications of intestinal obstruction had existed from early childhood. All four strictures were the result of cicatrices formed in old tuberculous ulcers. Six days after the operation the patient's condition was satisfactory.

In fifteen resections of the cecum, only three were for tuberculosis. The differ-

ential diagnosis between tuberculosis and cancer in this region is difficult. In cancer, the tumor alone is felt, and the constriction of the intestine occurs quite rapidly. In tuberculosis, the whole cecum is thickened and infiltrated, and the condition is painless. The immediate results of resection are far better for tuberculosis than for cancer, but the ultimate results are extremely unfavorable.

A tumor is characteristic of malignant stenosis of the bowel, which is the exception in inflammatory stricture. Malignant new growths may be engrafted upon an inflammatory cicatrix. A cancerous tumor of the intestines quickly affects the liver by metastasis, and blocks the portal circulation as well as the vena cava, passing behind it. This causes ascites through exudation, and back pressure from the veins of the stomach and intestines, as well as from the vena cava inferior.

Primary sarcoma of the intestines is rare. Fourteen cases are reported by J. C. Warren, of Boston, Mass., and fifteen cases by C. Van Zwalenborg, of Riverside, Cal.

Dr. Arthur W. Booth, of Elmira, N. Y., gives the following review of a case: The duration of his patient's trouble was one year, dating from the first appearance of pain in the region of the tumor. The fever preceding death bore strong resemblance to typhoid, although there was no *post-mortem* evidence of infection of Peyer's patches, or a friable condition of the spleen. At the examination, held sixteen hours after death, the mass previously recognized proved to be a tumor of the small intestine, about four inches from the pylorus, located mostly in the left hypochondriac region. It was irregular in outline, and a single portion of the intestine could be seen entering and leaving the mass. On removal and section it appeared to be an overgrowth of the mucous and sub-mucous coats, with some involvement of the muscular layer, the peritoneum being intact. The lumen of the bowel was somewhat larger than normal on account of erosion, evidently retrograde, *i. e.*, due to necrosis and hemorrhage.

Upon microscopical examination, the growth was found to be a round celled sarcoma. A few enlarged mesenteric glands were discovered, the remaining abdominal viscera being normal. The man was a cemetery worker, where he was in the habit of drinking water from a shallow well, undoubtedly contaminated by surface drainage.

The duodenum had been opened by misadventure. One fatal case is reported from the continuous roll of fluid feces which could not be arrested. The patient had taken freely of purgatives before the operation.

After resection of the continuity of the enteron, approximation must secure means for producing accurate contact of surfaces; speedy and permanent adhesion of the opposed surfaces; the maintenance of a sufficiently large opening in the bowel for immediate requirements, and cicatrices that will not contract to an impervious degree.

In making the end to end union after resecting the bowel, we face a law of stenosis that is irrevocable, and beyond the control of the surgeon; hence, preference has been given to lateral anastomosis; end to end union gives better results than lateral approximation.

In closing the enteron, the Czerny-Lembert suture protects by its intimate apposition the underlying tissues from exposure and infection. Rindfleisch shows that with this suture there necessarily occurs a narrowing of the lumen of the enteron.

Halstead prefers the plain quilt suture to the Lembert. The vessels of the incised intestine are ligated by circumvection.

A solution of corrosive sublimate, one twenty-thousandth, or normal salt solution, used by means of irrigation, is most important when tying the stitches.

(To be continued.)

[Written for the MEDICAL BRIEF.]

Acetanilide.

BY J. A. BURNETT, M. D.,
Cecil, Ark.

In most acute diseases there is usually fever present, which must, in most instances, be controlled for the comfort of the patient, and the satisfaction of their friends. For this purpose there is no drug that equals acetanilide in being quick in action, and cheap in price.

It can be given alone, or in combination with other remedies.

When in need of a diaphoretic, in fevers, a combination of acetanilide, capsicum and quinine fills the bill. When prescribing acetanilide for patients who are very weak, it should always be combined with capsicum and quinine, and if the diaphoretic effect of this combination is not desired, an addition of belladonna should be added to it.

In malarial fevers it is a good plan to prescribe quinine as usual, and, thirty minutes before the chill is due, give five grains of acetanilide and two grains of capsicum. This will usually abort the chill.

During a malarial fever it is not necessary to wait until the fever is down before giving quinine. It can be given during the fever, if combined with twice the amount of acetanilide, or even equal parts can be used.

It is not generally known by physicians that acetanilide will prevent abortion. For this purpose it is given in ten-grain doses. Usually one dose is sufficient, but if not repeat in one hour. It is much better to use viburnum prunifolium for this condition, if at hand.

A small amount of acetanilide put in the hollow of an aching tooth will quickly relieve it. Guaiacol is superior to acetanilide for toothache, and should always be used in place of acetanilide, when on hand. A combination of acetanilide and salicylate of sodium applied to the tonsils will cure tonsillitis. The sodium salicylate alone is of great value in this condition.

Dr. M. E. Johnson says of a combination of acetanilide and salicylic acid, four of the former and one of the latter.

"When this combination is given, a typhoid case, there will be little or no bloating, no offensive stools, and the fever can be kept within a safe range.

"La grippe and this powder can not remain long in the same hide at the same time. All that is necessary is to give enough early in the disease. Reduce the fever, aching and discomfort of malaria with this before giving quinine.

"Sciatica can not stay where the system is saturated with this remedy, and will speedily get well; rheumatism likewise.

"These are only a very few of the places where you can use it to great advantage. Now, remember this is only a part of the treatment. In all cases such other treatment should be used as may be required. Always remember to keep the bowels going well and thoroughly, and the intestinal antiseptics are all right, and should most always be given. This combination does little or no good in passive congestion, or where the temperature is normal, and should not be thought of when a stimulant is demanded.

"In pneumonia I always reduce the fever and hold it down with my acetanilide and salicylic acid powder, and have never lost a case under this treatment in fourteen years. I have found out that it is hard for an inflammation to make much headway when I control the fever and keep it down."

A bottle of the combination of acetanlide, four parts, and salicylic acid, one part, should be in every physician's medicine case.

Acetanilide and salol works well together. Equal parts should be given in five to ten-grain doses as an antipyretic.

Coffee is a good antidote for acetanilide. This should be mentioned to patients when prescribing it, as it may prevent much harm, and save life.

[Written for the MEDICAL BRIEF.]

Castor Oil in Dysentery of Childhood.

BY J. H. KENNEDY, M. D.,
Aberdeen, Md.

It is usually administered in full dose, alone, or with calomel, in first stage of the disease. Later, and at intervals, it is a valuable remedy, alternated with the array of other remedies in use when pain, fever and bloody stools do not yield to the latter, given in ten to fifteen-drop doses, combined with a little liquid opium, and suspended in aromatic mucilage, every two or three hours, until the upper bowel is again cleared, and a fair field for the action of antiseptics and astringents, from bismuth to resorcin, provided. Keep the mixture at hand for alternate use.

[Written for the MEDICAL BRIEF.]

State Board of Medical Examiners.

BY D. S. MADDOX, M. D.,
Columbus, Ohio.

The institution known in this country as the "State Board of Medical Examiners" is a phase of paternalism transplanted from the old world, and has no proper place in a land where freedom and independence are presumed to be concrete facts, and not mere abstractions.

No good and sufficient reason has ever been given, for establishing a tribunal of this character in any State of the Union, yet we find them everywhere. It is an absolutely unnecessary piece of legislation, for it benefits neither the public nor the medical profession. A board of this kind is a medico-political fungus, an irritating excrescence on the body politic, arising from misrepresentation, chicanery, and lust of power on the part of irresponsible medical politicians.

These boards humiliate and insult the medical profession by arrogating to themselves the absolute guardianship of the moral and professional integrity of its members. They are narrow, arrogant, dictatorial, and are constantly importuning legislatures to grant them more authority, so that they can with impunity persecute and put on the rack anyone who dares contradict them, or in any way assert his independence of thought and action. They demand that the profession be placed under their complete subjection in order that punishment may be meted out to all who do not render instant and slavish obedience to their behests.

In this respect they resemble the Spanish Inquisition of the thirteenth century.

In many instances these boards presume to interpret the laws (a function belonging solely to the courts), thus exalting themselves into judges and lawgivers. In this way they usurp powers the legislature did not intend they should have, and so manufacture excuse for arbitrary rulings of every description. A board of this sort is tyrannous, because the entire profession of the State is placed at the mercy of a select few of their number, from whose mandate there is no adequate appeal.

In some States, at the mere whim or caprice of a board, a qualified physician may have his business broken up, and himself denied the right to earn his bread, and all this without an opportunity to have his case heard in a regularly established court of justice.

A few years ago, had anyone predicted that any class of citizens would be singled out in this democratic country of ours as proper subjects for oppression and vassalage, and their constitutional rights abridged in this summary manner, he would have been laughed at. Yet this extraordinary and humiliating spectacle now confronts the physicians of the United States. We have been told that these examining boards are for the purpose of protecting the people from incompetent doctors. But is there any record of the people ever having demanded that guardians be appointed for them in this matter? On the contrary, the people have always claimed the right to select their own medical attendants without regard to school, pathy, diploma, or anything else.

It is a moral right they possess, and they will continue to exercise it just as long as suffering and disease hold sway in this imperfect world of ours. If we do not soon get rid of our existing medical laws, the people will have to demand special laws to protect them against their self-constituted medico-political guardians.

How can a State board examination determine the fitness of a medical graduate to practice? A little reflection will show that it can do no such thing, that the whole performance is a howling farce. Is it not a fact that a doctor's skill can be measured and estimated only in actual practice, and in the presence of actual disease? How many of us have seen doctors that were veritable walking encyclopedias of medical lore, that when confronted by a medical or surgical emergency were absolutely bewildered and helpless? Who, in fact, seemed to have no sense at all?

I fancy we have all seen them. Yet these men are shining lights of science at a medical board examination, and go forth labeled as the only Simon pure.

What, then, is the inference? The inference is that the people alone must be the real judges of the doctor's worth and

ability. The ultimate judgment of the people in this, as in other matters, is unerring. They can always be trusted to distinguish the true from the false, the honest physician from the charlatan. It appears that the various State boards have, in order to more completely oppress the rank and file of the profession, formed a national association. About the first thing this association did was to declare by resolution that a diploma is not worth the parchment it is written on, except as a means of identification. Think of a man putting in three or four years' hard work, passing numerous examinations before the faculty, and expending large sums of money, only to be told in the end that the coveted diploma is merely a card of identification by which he may be recognized as Smith or Jones, when he wanders forth from his *alma mater*, or crosses a State line in search of a new location.

Webster says that a diploma is "A letter or writing, usually under seal, conferring some privilege, honor, or power." But your State board, sublimely indifferent to Webster, or any other authority, says it is no such thing, although it may bear the names of medical authorities and teachers of the highest eminence, and world-wide fame. When the applicant for license appears before the board, and presents his diploma, he is given the laugh and told that the document is no good. that before he can practice he must submit to an examination, paying the board a fee from $25 to $50 for their trouble. If he refuses to be "held up," and attempts to earn his living without the board's permission, he is arrested, like a common criminal, fined, and perhaps thrown into jail.

The attitude of these boards toward the diplomas of reputable medical colleges is so arbitrary, unjust and despotic that it ought to be vigorously resented by every graduate and every medical faculty in the land. A ruling of this kind would be an insult to even the feeble intelligence of a Hottentot. But when thousands of educated American citizens are asked to swallow it without question or protest, the dose becomes absolutely nauseous. The question naturally arises, what are we going to do about it? The problem is really not as difficult as it appears at first glance, for right will invariably prevail when its advocates become active in the cause. The majority of physicians in this country believe in medical freedom, *i. e.*, the right to think and act, and carry on their business as they see fit, without being dictated to, regulated or coerced by any board or tribunal established *pro hoc vice* by legislative enactment. Now, in order to correct the present evil, all that is necessary is that the liberal element get together and demand reasonable, impartial and just laws, in place of the bad ones now in force. Such a movement has already been started by "The American Medical Union," a national association embracing all schools of medicine. That the movement meets with general approval is shown by the rapidly increasing membership of this association, and the organizing of auxiliary State unions. Every liberal-minded physician who wants to see right and justice prevail ought to interest himself in this movement, and help along the good work by word and deed.

1398 Oak Street.

[Written for the MEDICAL BRIEF.]

Diphtheria.

BY JOHN MAYFIELD, M. D.,
Denison, Texas.

I see so much written about this disease (diphtheria), and physicians differ so much in regard to the nature and treatment of the disease—some still treating it as a local disease, confined to the throat. First cases I had treated as local, cauterizing, poulticing, etc., which treatment evidently seemed to aggravate the disease, consequently nearly all died. Those cases I met with in 1864, in Kentucky. The same year there was an epidemic of the disease in the vicinity of Lexington, Ky. Through the influence of Dr. Bush, of the same place, a number of physicians assembled there in convention for the purpose of coming to some understanding in regard to the nature and treatment of the disease, and to form a proper diagnosis of the same; and this was the conclusion, after due delibera-

tion: That diphtheria was a constitutional disease, affecting the entire system, and should be treated accordingly. Before giving treatment, I will give diagnosis. On examination of the throat, we find the tongue, uvula, tonsils and upper part of larynx covered with what is termed "little creamy excrescences," over tongue, uvula, tonsils, etc. Without treatment, as the disease progresses, these excrescences become still darker in color. In *post-mortem* cases, we find this same formation extending down the bronchial tubes. When these reach the lungs, death ensues. Temperature is rarely over 100° F., pulse ranges from one hundred and ten to one hundred and twenty, generally attended with difficult respiration, caused by enlarged uvula and tonsils; circulation not equalized, capillary circulation cut off to a great extent, rarely affects the glands. No other disease I ever met with presents the same conditions, consequently it is no trouble to form a proper diagnosis.

Treatment: Muriate iron and chlorate potash, given together, forms what is known as chlorine mixture. For a child five years old, a teaspoonful of solution, five drops ferri, every three hours. As no disease is so depressing on the system, it is recommended to use quinia and whisky from the beginning. In extreme cases, I have them stripped of clothing and given a good alkali bath and rubbing.

During the spring and fall of the year 1865, I treated ninety-five cases with this treatment and all recovered but two. In some of these cases the treatment was commenced in its earliest stage.

About this time, Dr. William A. Hammond, a surgeon in the U. S. army, located in New Mexico (soldiers in that wild country were often bitten by rattlesnakes), came to the conclusion that if it was a specific in diphtheria it would be good for the bite of the snake. After that no more soldiers died from the bite.

Readers of the MEDICAL BRIEF, I would like to hear from some one who has had some experience with placenta-previa, and in reporting your cases of pneumonia, say whether your case is single or double, what you find on auscultation and percussion, and if the expectoration is of the brick-dust variety.

[Written for the MEDICAL BRIEF.]

A Case of Extra-Uterine Pregnancy.

BY L. E. BARTON, M. D.,

Malta, Ill.

Was called to see Mrs. O., whom I found in a state of collapse, following an excruciating pain in the lower part of the abdomen. There appeared to be no reaction for twelve hours, and her temperature was slightly sub-normal several hours longer, after which temperature ranged from 103° to 104° F., for a period of three weeks. Abdomen very tympanitic. A vomiting of a grass-green material so continuous that it seemed all efforts to sustain vital power would fail. During this period patient's condition was so grave that several consultations were held concerning the nature of the illness. One consultant who was at that time budding into great notoriety, ascribed the green vomited material to a deranged condition of the digestive organs, and as a small creek was within sight of the house, that such digestive disturbance was caused from malaria.

Another consultation with an elderly practician, who had received much flattery from the laity as to his medical ability, very quickly, and with an air of one who knows what he is talking about, said, "You have a case of pelvic cellulitis."

Up to this time, fourteen days after the beginning of the illness, I felt that whatever the cause for such serious distress, it was obscure. In addition to a condition of the abdomen resembling peritonitis, we had an exudation of pus through the cervix which was continuous. The uterus was enlarged and tender. I was inclined to the opinion that we had a pus tube, and a general metritis.

After twenty-one days, temperature subsided, followed by a general condition of improvement. In eight weeks from first attack, she was again able to leave her bed. In eight weeks more, was recalled to find the same condition of pain and shock, and she ran the gauntlet of four weeks more of the same condition she had previously been subjected to, but now it was evident that she was pregnant. She again recovered sufficiently to leave her bed. At the eighth month the same

symptoms were renewed. I secured my choice of consultation. A careful examination into all conditions was made. The cervix, to an experienced finger, revealed nothing peculiar. The final decision was to terminate labor in the hope of saving mother and child. We found, upon exploration, an empty uterus, whose cavity extended nearly to the most superior portion of the mass, which contained a living, moving child.

No surgical interference would be permitted by the husband, and the writer was forced to remain at the bedside of a suffering mortal three long days, and witness the most awful death which has fallen to his lot in twenty years' practice.

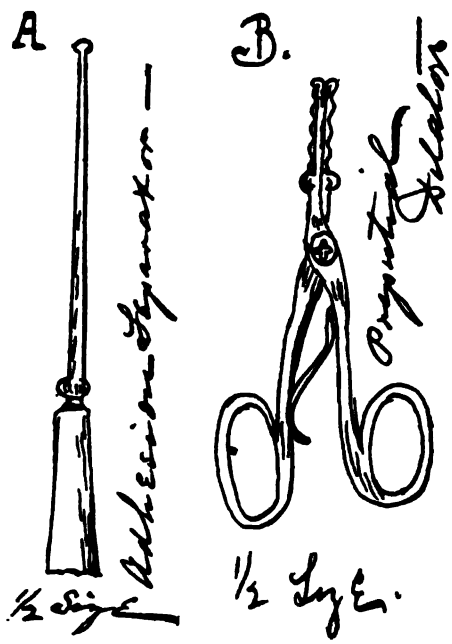
At least half a dozen doctors, some possessing more than ordinary ability, failed to make the right diagnosis. Would another case be so obscure?

[Written for the MEDICAL BRIEF.]

A Simple Method by Which Operation of Circumcision is reduced to a Minimum.

BY E. C. SCHOLER, PH. G., M. D.,
Chicago, Ill.

Within the past fifteen years I have had to resort to only two operations for circumcision. Over ninety per cent of cases where we have a constriction of the preputial orifice and membrane, or where adhesions exist, same can be remedied and corrected with very little difficulty, if promptly attended to directly after birth. The following method I have resorted to in every male birth requiring treatment with perfect success. The following day after delivery, after having attended to the mother, I ask the nurse to place the baby on a pillow on the table, and instruct her to hold the baby's limbs firm and apart while I examine the child's organ. If there are any adhesions, I take the small instrument (A) and pass same under the preputial membrane as far back as the corona glandis, then, with a rotary motion, I pass the instrument from side to side, loosening whatever adhesions there may be. Next, I insert instrument (B) and dilate the preputial membrane gently. Next day, upon my visit, I repeat the same treatment, and usually by the fifth day the dilatation is complete, so that any constriction or adhesions of the prepuce are entirely corrected and the membrane can be easily drawn backward, uncovering the glans. My next procedure is to remove all the smegma perputic, if any has accumulated, under the membrane back of the corona glandis, and after cleansing same I anoint thickly with a suitable ointment and draw the membrane forward again. By the time I make my last visit, the organ is in a normal and healthy con-



dition, with no probability of having to perform circumcision later. I also instruct the mother to draw the membrane back occasionally when bathing baby and keep parts thoroughly cleansed, anointing same and not forgetting to draw the membrane forward again after cleansing. Phimosis in children has produced conditions well worthy of serious consideration. Convulsions, epileptic seizures, chorea, paraplegia and serious reflex nervous disturbances have been known to come from a reflex irritation of a contracted and constricted prepuce.

How frequently do we find a child pulling and meddling with its organ, and, in fact, even becoming masturbators from no other cause than the itching and irri-

tation produced from the accumulation and impaction of smegma behind the corona glandis. Of late years I have kept account of all the abnormal cases I have been called on to attend and correct, and in one-fourth of the cases the mother had been attended by a physician. It seems to me inexcusable, where so slight an abnormal condition exists, that can be corrected so easily, the attending physician should fail to attend to same and relieve the little one of much needless suffering and inconvenience, for later the condition will have to be corrected, and then only by an operation. Then, again, if the doctor fails to mention the fact that the child's organ is not right, and in after years the child has to undergo an operation, the parents will be sure to censure the attending physician for his carelessness.

In quite a number of families, where I attended the mother in the last confinement and corrected those abnormal conditions, my attention was called by the mother to the other boy members of the family, and in various cases I found adhesions and constrictions. Some of the cases were even then corrected without operation, while in others there was no other remedy. Of late years I have found these abnormal conditions occurring much more frequently than when I first began the practice of medicine, and have often felt I would like to ask through a medical journal whether my colleagues have had like experiences in their family practice.

Cor. Lincoln and Cornelia Aves.

[Written for the MEDICAL BRIEF.]

Sex and Tide Cycle.

BY T. E. REED, M. D.,
Middletown, Ohio.

A knowledge of the principle of tide cycles can be so valuable in so many ways to the practitioners of medicine that I would like it agitated until, at least, some physicians become interested.

I am prompted at this time to stir up the subject by Silas Hubbard, M. D., again coming to the front with his sex theories, and *theories* they truly are. I will leave others to judge of them pro or con.

If some married couples should be desirous of procuring one or the other sex, let them adopt his methods and note results.

If a plan will not succeed, then of what account is it? How many test cases can he point to after over fifty years of observation?

The Doctor would like to bring in his theories to help explain the *law* I advocate for production of sex at will.

He says, "the perfection of the flow of the tide is in the day-time under the attraction of the sun." I must say that this is new to me, although I have made a study of tide cycles for years.

Now, it is a question as to what causes the tides. The theories advanced in our works on astronomy are *presumptious* and about as tangible as Dr. Hubbard's theories on the sex question. We do know, however, the effect of these cycles and that the moon is the time-keeper for the tides.

I have been surprisingly impressed with how little so many, otherwise intelligent, doctors know about the habits of the tides, to say nothing of their influence upon all life. Many seem to think that the tide *flows* in the day-time and *ebbs* in the night-time, or vice versa. I am afraid that Dr. Hubbard belongs to this class; his remarks, just quoted, would lead one to think so.

Any one acquainted with the tide cycles know that not one hour in the twenty-four has precedent over another when we consider the month through, or I may say two weeks, for the tides make two complete revolutions in one month's time.

For those desiring to investigate, I would advise to address O. H. Tittmann, Superintendent Department of Commerce and Labor, Washington, D. C., for *Tide Tables* for 1905. This is a large pamphlet (price fifteen cents) giving the time and height of high and low water at numerous points along the whole Atlantic coast, including Canada and the West Indies.

A little study of this pamphlet will enable any one to locate his latitude on the continent compared with some given station on the coast, and judge of incoming and outgoing tidal influence every day, whether on land or sea, which are not two days the same. until perhaps, like the

solar cycle, seven years are covered when they again traverse the same exact path as regards time.

When acquainted with these cycles you have but to observe that from a copulation, producing a result, occurring during the *flow* cycle a *male* child will result, but during the *ebb* cycle a *female* will appear in evidence.

I care not whether the time happens to be day or night, under the rays of a blazing sun or in the shade of a mellow moon, before or after sleep, preceding or succeeding the monthly flow, with ova new or ova old, ova high or ova low, if the woman initiate or acquiesce in proceedings, if she be mad or meek, cross or caressing, happy or hateful, spoony or spunky, voluptuous or virtuous, saint or sinner, active or passive, *the law of time cycles alone will decide the nature of the sex*, vague speculations and wild theories of some M. D.'s to the contrary notwithstanding.

[Written for the MEDICAL BRIEF.]

Mistaken Ideas in August Medical Brief.

BY PATRICK T. MELDON.
An Experimental Medical Scientist.
San Bernardino, Cal.

Why do medical writers—in BRIEF articles—write so ardently on the pathology of a disease and cool down before prescribing for it? At least tell us what you think is best to do in the case. One might even suggest a treatment that might be good, if he has one to suggest; suggestions are often very helpful.

Silas Hubbard on the sex question: Is he of opinion that the sun controls the tides? Marine scientists note the tides according to the moon, and this science is founded on the science of astronomy.

A man of my acquaintance began with those fads in 1889; he knew everything about the sex question, got married and was going to raise all boys. He is today supporting five daughters.

Wm. H. Tate, M. D., on hydrophobia: The celebrated madstone of Virginia is seemingly not the only madstone in the world; a man from Missouri tells me that every other man in that State has a madstone. I swallowed that as one on Missouri, and concluded that any old stone is good enough when applied to wounds that have not absorbed the virus.

If you meet with a rabid dog—not a mad dog— in your experience, try this treatment on him; and follow it as judgment shall dictate in the case of a human being:

℞ Acetum ..... 20 drops.
Cupri Sulphas ..... 1-60 grain.
Aquæ ..... 1 drachm.
M. Sig.: Inject in the back of the neck.

Give the dog acidulated drinks and it will astonish you to see how he will enjoy them.

Henry L. Shively, on tuberculosis: Milk and raw eggs simply bloat a tuberculous patient; do not call that a cure! Six months, at most, is as long as any patient can take this treatment inordinately. Then a high fever, night sweats, headache and a violent, incontrollable diarrhea sets in, while the milk and raw eggs pass from the bowels, but slightly discolored and almost cooked. Such, in brief—on this subject—is what I have learned in six years steadily treating tuberculosis. But I shall still make the subject clearer for you.

(1). Milk will culture the bacillus of tuberculosis; (2) would you care to slowly swallow a glass of milk that had been exposed twenty-four hours in the room of a tubercular patient? (3) Would the milk seem especially inviting to you had the patient been drinking out of the glass? (4) Should you have a tubercular affection in your throat, would it seem possible for you to cauterize that affection with any quantity of milk?

If we are to be scientific, let us scientifically oppose this or any other disease as we understand it. Fat is a protective tenacious property of the bacilli. Milk, raw eggs and sugar gives them a source of fat, and with it they produce an unctuous tubercle mass to the extent of systemic poisoning. On this account tubercular patients have a preference for acidulated drinks and a repugnance for sweet ones. The mind, as it were, instinctively prefers that which is most likely to break up the tubercle mass and destroy the bacilli. Why, then, have we

so long imposed milk and raw eggs upon those patients?

Put your patient on a substantial, nutritious diet, and he will do best. Have him take several small doses of salt during the day; he can swallow the salt with considerable water, and increase on the quantity of both as he gets used to them. Give dilute phosphoric acid as a tonic and you will help him but not cure him. The cure of this disease, however, is almost at your hand, but for the time being, let me say: Milk and raw eggs in the treatment of tuberculosis was but a damnable theory at best. And I am sincerely hopeful that the medical profession shall never again recommend it.

[Written for the MEDICAL BRIEF.]

Expert Medical Witnesses.

BY A. M. STEEN, M. D.,

Palatka, Fla.

Testimony, as given in the courts, are of three kinds: One is a common witness, in the ordinary acceptation of the term, who testifies simply to matters of facts of which he has personal knowledge.

The learned witness imparts to the court information as to facts peculiar to his particular trade or profession.

The expert witness is a witness of opinion only. But concerning matters of facts, of which he has special professional expert knowledge, such as the ordinary witness can not from the nature of the case, be expected to have.

Every citizen may be called upon to testify to matters of fact of which he has personal knowledge.

The medical expert witness, however, is of a kind different from the ordinary witness. He is called upon by the prosecution or defense to give an opinion or testimony as to facts of which he has no personal knowledge, but concerning which he is specially qualified to express his opinion on account of his professional training. No law can compel a physician to make an examination of the contents of the stomach with a view to determining whether they contain a poison, if he refuses to do so.

The medical expert should remember that his answers to questions are taken down, recorded, and often printed, and the evidence you give this day may be re-investigated at a subsequent trial, and your opinion in this case brought before you in some other issue, so you should clearly understand each question put to you, and answer it deliberately and carefully, using plain, simple language, avoiding technical, medical and scientific terms wherever possible.

Of the many cases in which the introduction of expert testimony becomes necessary, cases of insanity are the most frequent, and the most important. A client is brought into court for murder or some other atrocious crime. His attorney enters the plea of insanity, in any of its one hundred and fifty forms. The facts of the crime may be correctly detailed by any one of sound mind; but the culprit's physical and consequent mental condition can not be so easily ascertained.

To the ordinary observer there may be no manifestation of the disease of the central nervous system. To him, preceding attacks of disease, a history of alcoholism, a history of syphilis, or a family history of nervous diseases in various forms, extending back several generations, may have no especial significance. Some one is needed who can put all facts of this man's life together, who can note his gait, test his reflexes and notice all other physical phenomena, and from these facts and phenomena determine if the accused is of sound and disposing mind, and whether he be responsible for his acts or not. Hence, the expert witness becomes a necessity. Upon his dictum depends, perhaps, the life of a human being, the desolation and disgrace of a home, or the administration of unerring justice.

Unfortunately, the average medical expert seen in our courts to-day is an out-and-out partisan and advocate, and is so regarded by the judge, jury, lawyers, spectators, newspapers and public alike. What is far worse, moreover, the general conviction is that the opinion of such an expert, though given under oath, is purchasable. The conviction is becoming daily more deeply seated in the com-

munity that the professional opinion of the medical man who appears as an expert runs with his fee.

Now, all this is entirely wrong. It does not help, but hinders, the administration of justice, and is injuring the reputation and high standing of our noble profession. This unfortunate condition has brought expert testimony to the condition where members of the legal profession have taken advantage and cast ridicule upon the expert.

Men who rank high ought to be able to agree in all essential points of a diagnosis, and they should speak the truth regardless of the circumstances surrounding their introduction into court. There are many and important medico-legal cases aside from those of insanity. They occur at unexpected times and in unexpected places. Therefore no physician should ever give expert testimony without previously and thoroughly investigating from every possible standpoint the question at issue.

To prosecute such investigation is a duty which he owes to himself, to the court and to the accused. When medical men learn to investigate in this manner, then medical expert testimony will regain the high standing and reputation it once enjoyed. While on the stand the expert will be questioned and cross-questioned by shrewd, brainy men, whose business it is to confuse him, to lead him from the truth, to cause him to make contradictory statements, to cause him to lose his temper and say injudicious things. He must remember that this is the business of the lawyer, and he has studied his art well. Physicians as a rule are not calculated to cope with such men.

The lawyer can read standard works on surgery or practice as well as any one, and with a few weeks' preparation, he is often as well or better informed upon the subject in hand than the man he examines. The witness, then, must know his subject well, that he may not subject himself to ridicule, that he may deliver a sound opinion, that the truth may not be made to appear false. The witness should never lose his temper. The moment he does, the examiner gains a point and the witness loses in the estimation of the court and jury. He should not make haste to answer questions, but should think well before he speaks. He should be very careful and not quote authorities, for there are many and contradictory authorities.

It must be remembered that the expert is called to give his opinion, and not to say who agrees or who disagrees with him. If a quotation from the works of a deceased authority is read to you in cross-examination, and if you are asked if you agree or disagree with the opinion expressed, never under any circumstances accept the quotation as expressing the opinion of the authority in question. Neither assent to, nor dissent from the quotation, until you have asked to be permitted to see the book from which the quotation is made.

If from lack of knowledge or other reason he is unable to answer any question he should frankly say so.

Some experts seem to think that to confess they have not read a paper or treatise of this or that author, or are unfamiliar with his views or opinions, is an admission of ignorance which is discrediting. Better far, however, make such admission frankly than to claim familiarity and have it demonstrated in the next few questions that the statement is unwarranted.

An experience that the author well knows happened to one of the brightest medical men of the community and which I have never forgotten—the embarassment of the doctor as he left the stand.

In the trial of a poisoning case, the Doctor was asked this question:

Counsel.—Doctor, are you familiar with the history of poisoning?

Doctor.—Oh, yes, perfectly familiar with the subject.

Counsel.—Doctor, please tell the court and jury when was the first law enacted specifically relating to the crime of poisoning?

Doctor.—Oh, I can't tell it to you now!

Counsel.—Doctor, tell the court at what period in the history of the world, that the idea of antagonizing the action of one poison by another, was first developed?

Doctor.—I can not answer such a question.

Counsel.— Doctor, did you not a few moments ago tell the court and jury that you were perfectly familiar with the history of poisons?

The Doctor left the witness stand very much embarrassed, and lost his reputation as an expert witness, and the public at large seemed to think that he was not as well informed in the medical profession as he was given credit for.

It is settled by law that an expert witness may testify as to his opinion, derived entirely from his reading, yet medical books and excerpts from them are not admissible in evidence, though they be recognized standard authorities. The reason for the exclusion of such medical books is that the opinions of the authors, therein stated, were not written under oath, nor had the defendant an opportunity to cross-examine the learned writers, nor to ascertain whether their views may not have undergone any change since their article was written. But for the purpose of contradicting and discrediting the witness, extracts from medical works which are in conflict with the views expressed by the witness in his examination in chief may be read to him, and the question put whether he subscribes to the same.

The counsel will not be permitted, under the guise of cross-examination, to read excerpts from medical works not in contradiction of the expert's evidence in chief for the purpose of sustaining the cross-examining counsel's theory of the case.

No one has any title to respect an expert, or has any right to give an opinion upon the stand, unless as his own opinion; and if he has not given the subject such careful and discriminating study as has resulted in the formation of a definite opinion, he has no business to give it. Such an opinion can only be safely formed or expressed by persons who have made the scientific questions involved matters of definite and intelligent study, and who have, by such application, made up their own minds. The jury are only concerned to know what the witness thinks, and what capacity and judgment he shows to make his opinion worthy of respect.

[Written for the MEDICAL BRIEF.]

Enteric, or Typhoid Fever.

BY A. J. HALL, M. D.,
McKenzie, Ala.

So much has been said of the fever of which I have made the subject of this paper, that I am free to admit that it looks a little egotistical on my part to say more, yet it has been said by so many, and good authorities, too, that "typhoid fever" can not be aborted or cut short. I am not here to assert the error, but I do say that if two cases are handled by two doctors, and one gets his case up sooner than the other, and it happens this way several times in succession, does it not strike you that the time has come when a little study or reflection as to the cause of this phenomenon is in order? Well, I would say yes.

In all schools so far as I know, the rule is to clean up, clear out as a starter. Some use one agency while another will use some different way to clean the bowels. My plan is to use powdered hyd. chloride mite, rhei and podophyllin with soda, in a sufficient dose, not doses, but a single dose sufficient to clean up from stem to stern, removing all debris that may have accumulated for a lifetime, invariably following, as may seem proper, with a saline purgative, or oil and turpentine.

The foundation of the life struggle is now laid. You are ready now to begin with your intestinal antiseptic. My standby is sulphide of calcium, used to saturation. Then, in more moderate doses during the entire spell, except in the event there is a bowel trouble sets up, in which case I use the sulpho-carbolate of zinc, which is the purifier and cleanser of the entire alimentary canal, and while I use cactus and strychnia for heart stimulation, and aconitine for fever, I am pretty well convinced that the sulpho-carbolates are a whole team themselves, and would cure in nearly every case entirely unaided by other medicine. If the kidneys need to be whipped up, suppose you use the bottle soda water, or the common bicarb. soda, in proper doses. Yet I desire to emphasize, I do not think much else but the calcium sulphate and zinc sulpho-carbolate is needed, for they seem to cure, to

weed every row, and leave no organ begging for help.

Watch your patient carefully and give no more medicine than is actually indicated by the symptoms, and your patients will rise and call you blessed.

It is well to have your nurse keep a record of the temperature, and hand it to you at each visit, but never allow a nurse to meddle with the thermometer except for your own edification, and not by any means for his or her amusement.

Nourish well with any liquid diet; any fruit juice, grapes, are great for typhoid cases. Malted milk and extracts of beef are also up-to-date. Do not fail to keep the bowels in good condition, and my word for it, you will have no complication, if the proper and above treatment is pushed to its needed limit.

[Written for the MEDICAL BRIEF.]

Carbolic Acid a Scientific Magic. (Supplement.)

BY ROBERT GRAY, M. D.,
Pichucalco, Chiapas, Mexico.

My contribution in June, 1905, MEDICAL BRIEF, has resulted in such an incredible number of letters, still coming by every mail, that personal replies are physically impossible, hence this once-for-all supplement.

Chloral hydrate and camphor gum are triturated till liquefied, and then crystal acid is added, which quickly dissolves. Kept in well corked bottle. Equal parts of the three drugs are used. Put equal part this mixture with equal of sweet oil to secure catarrh compound, which may be made weaker or stronger, as desired, same as other medication.

In BRIEF article, I stated nearly seventeen parts pure acid was in compound—sixteen and two-thirds exact—which was clear to my mind that above-named part of sweet oil was thus indicated, to make such proportion of acid from thirty-three and one-third in first mixture, as any one may find with a pencil and pad in half a minute.

Absolutely pure dry crystal should be liquefied to use pure, as even five per cent reduced is painful.

This is the remedy *par excellence* for stings and bites of most venomous scorpions and reptiles, applied freely to lesions, with dosage to the limit of diluted spirits of ammonia.

Regret inability to answer letters. Am in pneumonia epidemic; amply taxed with trying labor.

[Written for the MEDICAL BRIEF.]

Veratrum Viride, Drug Addiction and a Few Jottings on Typhoid Fever.

BY W. S. ROBINSON, M. D.,
Nashville, Ark.

Where there is a high arterial tension, uncomfortable throbbing sensation in the head, fullness, heaviness, roaring, wavy pulsation in the ears, flushed face, or, in other words, a partial sun-stroke, "overheated," there is nothing better than veratrum viride. It is no sleep-producing medicine, neither does it relieve pain, but it does produce a soothing or sedative effect, not like other preparations that are given to soothe or quiet by its sedative action. The longer it is given the less of the drug will be required to influence the patient. It has no bad after-effects..

With high temperature and full pulse, or any condition in which the patient is disturbed by a feeling of discomfort, due to exaggerated action of the heart, veratrum viride will improve the condition. Children threatened with spasms, veratrum will produce calmness and quietude, prevent convulsions until the fever can be subdued. You will never have convulsions, when your patient is well under the influence of varatrum.

Now, the danger of veratrum has been greatly over-estimated, as there are no deaths reported from its use. When indicated, give until you obtain its constitutional and controlling effects, and this can be done without any danger.

DRUG ADDICTION.

I find, from seven years' experience in the treatment of drug addiction, that the main thing is to eliminate all the effete material with which these patients are surcharged. Then a little common sense, and hyoscine hydrobromate, in very small

doses, as indications require, will put your patient on his feet, so that he can eat and sleep, and will be himself again. I have used hyoscine in something over two hundred cases (most of them physicians) without a single failure to cure satisfactorily.

TYPHOID FEVER.

It must be said that, as yet, unfortunately, no actual specific or antidote has been discovered for typhoid fever. Much might be hoped from the use of certain insoluble intestinal antiseptics, such as salol and the various remedies suggested for their antiseptic effects.

I am partial to the use of sulpho-carbolates of zinc and calcium in the treatment of this fever.

It is my opinion that the antiseptic effects of the sulpho-carbolates are manifested in any other febrile affection, general or local, specific or simple, quite as markedly as they are in typhoid fever.

I give small doses of calomel in the beginning of typhoid fever, especially if there is a dry tongue, to excite the flow of bile, and thus disinfect the bowels by Nature's antiseptic. But it is bad practice to stimulate the organs to action when Nature has shown their need of rest by reducing their work to a minimum during fever.

[Written for the MEDICAL BRIEF.]

Poisoning by Kerosene or Petroleum.

BY T. A. JONES, M. D.,

Selfs, Texas.

As I have never seen any account of such a case (and Hare's Therapeutics states petroleum is not poisonous) I will give a case I have just had (May 23, 1905). I was called by 'phone to a near town to see a child two years old who had swallowed eight ounces of coal oil. I ordered by phone an emetic of syr. scillæ, which was given, and vomited the child well. When I got there I found the child in a coma, pupil size of pin head, respirations about sixty, pulse about one hundred and forty; muscles as flabby as a rag, no use of them at all; in state of paresis; bowels distended with gas.

I ordered black coffee, tr. digitalis, castor oil per mouth, and enema of water, glycerine and epsom salts every two hours.

Next day I found conditions same; temperature 104° F. I gave antifebrine one-half grain, calomel one-half grain and podophyllin one-twelfth grain and one-half ounce castor oil every two hours; also, quinine, to be given when fever abated, and ordered hot fomentation to bowels and continued large enemas of epsom salts every two hours.

Third day temperature 100° F., pulse about one hundred, respiration about normal, pupil still contracted, but would respond; not so much coma and could use its limbs; bowels had acted, only two small actions after using enema every two hours, as stated, and taking in twenty-four hours four ounces of castor oil.

I discontinued all the rest of the treatment and made a saturated solution of epsom salts and ordered a teaspoonful to be given every hour for the next twenty-four hours, which caused good actions from bowels, and at my fourth visit, it being the fifth day from the time the child drank the oil, all signs of poison was gone, and I dismissed the case.

I write this as I have not been able to see anything in any of my journals, or medical works, about coal oil being poison. If any of the brother physicians have had any experience in such cases I would like to hear from them.

[Written for the MEDICAL BRIEF.]

The Drug Addict.

BY E. FORREST HAYDEN, M. D.,

Shaw, Miss.

There is probably no subject confronting the medical profession to-day freighted with more vital importance than the one of drug addictions, nor is there one upon which there is a greater diversity of opinion in reference to its management and treatment. A great many have offered suggestions, and few have made valuable contributions along this line and toward the permanent and humane relief of these unfortunate sufferers; but yet a great deal remains to be learned of the extreme

gravity of this class of diseases, and of the inevitable debauch and certain physical, mental and moral destruction of these patients, if uncharitably abandoned to their fate.

To-day we feel that we have a method of treatment by which we know that they can be speedily and absolutely restored to original health; we accomplish this, first, by a thorough elimination of all accumulated poisons caused by locked-up secretions and, second, by the use of a drug that places the patient in an anesthetic condition until he or she passes from death unto life almost without the consciousness of pain—vis hyoscine hydrobromate.

[Written for the MEDICAL BRIEF.]

Acute Cholera Infantum.

BY J. I. ALLISON, M. D.,

Bloomington, Tenn.

Age ten to twenty-four months, clean up and clean out patient daily with chloride of sodium baths and enemas, both tepid. Abstain totally from food first twenty-four hours. For vomiting and irritation of stomach and intestinal canal:

℞ Specific Aconite..... 2 drops.
Specific Ipecac..... 5 drops.
Epsom Salts.....10 grains.
Aqua Mint..... 4 ounces.

M. Sig.: Teaspoonful every hour.

℞ Specific Rus-Tox..... 3 drops.
Aqua Mint..... 4 ounces.

M. Sig.: Teaspoonful every hour; alternate with the above.

For diarrhea, pack the entire intestinal canal with three to five-grain doses carboveg. every hour to two hours. Malted milk every four hours.

Physician should be boss of cabin, and master of situation.

[Written for the MEDICAL BRIEF.]

Gall-Stones.

BY M. S. DENAUT, M. D.,

Walkerton, Ind.

A woman, aged forty-nine, mother of three children, passed menopause at forty-three years of age. Gave history of periodical attacks of severe pain in right hypochondriac region, jaundiced and clay-colored stools. Could outline a tumor distinctly nodulated. Diagnosis, gall stones. I recommended immediate surgical interference, which she most emphatically refused, but insisted on taking medicine. I prescribed sangcura sprudel salts and sodii salicylas, five grains, three times daily, and other symptomatic treatment, for a period of twelve days, when she gave birth to a gall stone the size of a hickory nut, which was followed during the succeeding ten days by three others of about equal size, each marked by distinct facets, corresponding to the other. This was nearly three years ago, and the patient has manifested no symptoms which would indicate a recurrence of the malady. Adhesions, no doubt, formed between the gall bladder and transverse colon, irritation by the foreign substance caused sloughing, opening up a gateway into the colon and expelled.

[Written for the MEDICAL BRIEF.]

A Twenty-Pound Baby.

BY J. H. HUNTER, M. D.,

Ochlochnee, Ga.

A few weeks ago I was called to see a Mrs. J., age twenty-four, white, health good, third child; was called at 3 A. M., four miles in the country. She had been in labor for two days and one night. On arriving at the house I found an arm presentation, the child was flexed posteriorly, with head and feet at the fundus. Under complete anesthesia I tried version, but failed; next I tried to take it piecemeal, but failed. The mother having lost so much blood (depending on a woman midwife) that she was almost bloodless when I first saw her. I then proceeded to take the child through the right abdominal right side. When extracted it weighed twenty pounds. The mother died in one hour afterward. Have any of the BRIEF readers ever delivered one any larger.

Much success to the BRIEF. I always welcome its coming.

I do want the BRIEF. I have not missed a number so far. I do like the BRIEF. Enclosed find one dollar postal order for same.—JNO. T. DAVIS, M. D., Zanesville, O.

[Written for the MEDICAL BRIEF.]

A Good Bracer—Sick Headache.

BY V. E. BOWEN, M. D.,
Farmington Hill, Pa.

To help a "boozer" straighten up, there is nothing better to my knowledge than the following:

℞ Specific Tr. Nux Vomica.....20 drops.
Specific Tr. Capsicum.....20 drops.
Water..... 4 ounces.
M. Sig.: Give a teaspoonful every hour; if indicated, oftener.

This helps to overcome the desire for liquor, restores the appetite for food. I have yet to learn of a single failure. When properly given, I am confident that there is no better bracer known to medical science.

Sick Headache.—Doctor, how often you meet a patient with a headache, and having a broad tongue, pale, and covered with a yellowish white coat. Give all such patients three to five grains of sulphite of soda, two to four times a day, and you will be more than pleased with the result.

[Written for the MEDICAL BRIEF.]

Answers to Contributors.

BY DR. R. D. ENGLAND, PHARMACIST,
Colt, Ark.

I notice in a recent issue of the BRIEF two articles on pneumonia, the first, "Pneumonia Not Necessarily Fatal," by E. V. Pennington, M. D., Mohawk, Tenn. To this article I wish to say, amen. Let us have more common practical sense and less theories; that is why I like the BRIEF. If I want some practical ideas I know where to look for them, in the BRIEF.

The second article, "Is Drug Treatment Useless in Pneumonia?" by G. W. N. Elders, M. D., Hematite, Mo.

I concur in the statement that it does, but not to the extent that some may claim. I have not practiced medicine as long as Dr. Elders, but I follow a different treatment in part. I have never been able to see any good from a blister. Neither is there any theory that can be successfully advanced in its favor. I would rather have one sore to heal than two.

Do you not know when you cause a sore on the surface you open an avenue to septic infection and the only way to heal it is through the blood circulation? So you double the effort of the healing process by the blood circulation. Just stop and think rationally for a moment. Is pneumonia not a collection of serum in the lungs? And if so does it not cause inflammation? If inflammation-heat, so what now? Apply the water-bag with ice water certainly. Use your medicines as suggested and use cold applications instead of blisters and you will reduce your mortality from ten per cent to one or two, as is my record. I am tired of so much theory and so little practical sense. I may be too independent in my course of practice, but I get the results, and as Dr. Elders says, a large share of this practice because of my success in this disease.

Out of one hundred and twenty-five cases during this season I have lost two, one having heart trouble before taking pneumonia, so died with heart failure. My patients get well in from three to seven days.

The article written by Abraham Goltman, M. D., entitled, "The Outlook for the Beginning Practitioner," that appeared in the February BRIEF, is another article to which I wish to call attention. He says: "In order to reduce the overflow of doctors being turned out by the colleges that the course should be raised to five years and the fees so raised that persons with only moderate means could not attend medical colleges." Is this in keeping with the better interest of our country? Is this not a stride (a long one, too) in the direction of monopoly? It is worse—it is creating a money standard, instead of efficiency.

This reminds me of the drummer and railroad agent. Drummer (slapping himself on the stomach): "You ought to be a man like me?" Agent (very small): "Yes, but my brain is not in my belly." Brain is not in money. I hope before such remedy, as suggested by Dr. Goltman, is adopted, that Gabriel will place one foot on the land and the other on the sea, and declare time shall be no more.

[Written for the MEDICAL BRIEF.]

Treatment of Typhoid Fever.

BY E. HOLLAND, M. D.,
Berlin, Md.

Two other remedies vie with baptisia, namely, bryonia and gelsemium. Either one if given according to its specific indications. will either abort or modify the case.

Specific indications:

Bryonia—White coated tongue, constipation, great thirst, dread of malaise, aching in head, back and limbs.

Gelsemium—Muscular and nervous prostration, with general trembling.

Baptisia—Stupid, besotted, drunken expression, brown streak down middle of tongue.

I have repeatedly tried the sulpho-carbolates, but find if the proper remedy is selected in the beginning we have no ulceration.

[Written for the MEDICAL BRIEF.]

Internal Piles.

BY J. L. FENNEL, M. D.,
Waterloo, S. C.

I have found the following formula exceedingly beneficial in internal itching piles:

℞ Ext. Belladonna .....1 drachm.
Pulv. Opium ..... ½ drachm.
Tannic Acid..... ½ drachm.
Ichthyol .....1 drachm.
Vaseline.....q. s. ad.....2 ounces.
M. Sig.: Apply locally morning and night.

[Written for the MEDICAL BRIEF.]

Examination Questions of the University of the State of New York.

Answer any ten of the questions under each heading, but no more. Check the number (✓) of each one of the questions you have answered.

ANATOMY.

TUESDAY—9:15 A. M. TO 12:15 P. M.

1. Give the surgical anatomy of the humerus.
2. What is the cerebellum and where is it situated? What is the size of the cerebellum as compared with that of the cerebrum?
3. Describe the structure of the pericardium and give its blood and nerve supply.
4. Name the salivary glands and their respective ducts.
5. What veins form the portal vein? Where is the portal vein situated?
6. How is the superficial palmar arch formed?
7. Describe the musculospiral nerve.
8. Describe the pleura and its reflections.
9. Wherein does the female perineum differ from the male perineum?
10. Give the origin, insertion, blood and nerve supply of *one* of the following muscles: Quadriceps extensor cruris, pronator radii teres, occipitofrontalis, gluteus maximus.
11. Bound the axillary space and mention its contents.
12. What changes take place in the vascular system at birth?
13. State the differences between the right bronchus and the left bronchus.
14. Give the gross anatomy of the eye.
15. Describe the pancreas.

PHYSIOLOGY AND HYGIENE.

TUESDAY—1:15 TO 4:15 P. M.

1. Describe a protoplasmic cell and its production. By what physical properties is living matter distinguished from dead matter?
2. Give the metabolism of (*a*) proteids, (*b*) carbohydrates, (*c*) fats.
3. Define hygiene, prophylaxis, contagion, infection, zymotic, ptomain, toxin, phagocytosis.
4. State the influence of the blood circulation on the secretion of urine. Explain the effect of division of the renal nerves on the secretion of urine.
5. Describe the functions of the stomach during the process of digestion.
6. How is the action of the heart affected by variations in the rate and force of respiration?
7. What are the functions of the sympathetic nervous system?
8. Give the normal temperature of the body. State how this temperature is maintained and under what conditions it is increased. What is the cause of the *post-mortem* rise of temperature sometimes observed?
9. Describe the physiology of vision with special reference to (*a*) the retina, (*b*) the iris, (*c*) the crystalline lens.
10. Describe the chemical interchange between blood and air during respiration and mention the forces concerned in this interchange.
11. Mention some of the common impurities of drinking water and state how such impurities may be removed. What constitutes (*a*) hard water. (*b*) soft water?
12. Mention the dangers of excessive shade about dwellings.
13. Describe in detail a proper system of plumbing for a dwelling house and point out the characteristics of faulty plumbing.
14. State the relative food value of raw and sterilized milk.
15. How are diphtheritic antitoxins prepared? On what theory are antitoxins applied?

CHEMISTRY.

WEDNESDAY—9:15 A. M. TO 12:15 P. M.

1. Define isomorphous, amorphous, crystalline, galvanic, polarization.
2. Explain the uses of the spectroscope in chemical analysis.
3. State the normal reaction of urine. How is the reaction determined and to what is it due?
4. Mention *five* elementary substances commonly used in medicine in a pure or uncombined state.
5. Describe a method of producing an electric current by chemical action.
6. Give the symbol, valence, occurrence in nature, physical properties and chemical properties of *one* of the following: Bromin, silicon, copper, antimony, manganese.
7. How is carbolic acid prepared? Give the treatment of carbolic acid poisoning.
8. Distinguish between alcoholic fermentation and putrefaction.
9. Give the properties of potassium. Mention five compounds of potassium important in medical practice.
10. What is the chemical name of tartar emetic? Describe tartar emetic as to properties and uses.
11. Mention a secretion of the body that contains (*a*) cholesterin, (*b*) pepsin, (*c*) trypsin, (d) casein, (e) bilirubin.
12. What reaction takes place when chloral hydrate is mixed with an alkali? Illustrate.
13. Give the chemical reaction of (*a*) saliva, (*b*) gastric juice, (*c*) tears, (*d*) bile, (*e*) blood.
14. Mention the most important acetates and give a method of preparing *one* of them.
15. Complete the following equations:

$$BaS+CO_3+H_2O=$$
$$3Cu+8HNO_3=$$

SURGERY.

WEDNESDAY—1:15 TO 4:15 P. M.

1. Classify wounds and give the treatment of *one* variety.
2. Describe teratomata and give their situations.
3. Describe in detail an amputation in the lower third of the thigh.
4. Give (*a*) the predisposing causes of fracture, (*b*) the immediate or determining causes of fracture.
5. Mention the accidents that are liable to occur during the reduction of a dislocation.
6. Give the symptoms and treatment of acute synovitis.
7. Give the causes, symptoms and treatment of stricture of the esophagus.
8. State the special danger of a wound of the femoral vein. Give the treatment of a wound of the femoral vein.
9. Give the differential diagnosis of hypertrophy of the prostate and abscess of the prostate.
10. What are the various forms of abdominal hernia? Describe congenital hernia.
11. Differentiate anal fistula, anal fissure, hemorrhoids and carcinoma of the rectum.
12. Mention in order of frequency of occurrence *four* of the most common pathologic conditions of the cervix uteri.
13. Give the causes, symptoms and treatment of mastoiditis.
14. What is torticollis? Give the causes, symptoms and treatment of spasmodic torticollis.
15. Describe rodent ulcer. Give treatment.

OBSTETRICS.

THURSDAY—9:15 A. M. TO 12:15 P. M.

1. Mention the external and the internal female organs of generation and describe the functions of the more important ones in each group.
2. Define menstruation, describe its function and state its relation to ovulation.
3. State the possible results of gonorrheal infection in the pregnant woman.
4. Mention and describe the principal subjective symptoms of pregnancy.
5. What changes in the uterus does pregnancy effect?
6. What is hyperemesis? Give the symptoms, course and treatment of hyperemesis of pregnancy.
7. State the causes of inertia uteri and give the management of this condition.
8. Describe the management of the perineum during dilatation and during delivery of the head.
9. Mention the indications for manual extraction of the placenta. Give technic of this procedure.
10. Describe the symptoms and give the treatment of asphyxia neonatorum.
11. What chief uterine displacements may affect early pregnancy and how are they treated?
12. What is salpingitis? Give the causes, symptoms and treatment of salpingitis.
13. Define vaginismus and give its causes, symptoms and treatment.
14. What are the causes and symptoms of endometritis? Give treatment.
15. Differentiate prolapsus of the uterus and inversion of the uterus. Give the treatment of each condition.

PATHOLOGY AND DIAGNOSIS.

THURSDAY—1:15 TO 4:15 P. M.

1. What is traumatic infection? How does it take place and how may it be avoided?
2. What pathologic conditions increase vocal fremitus?
3. Define thrombus, embolus, infarct.
4. Mention *five* kinds of bacteria known to be pathogenic in man, and name the disease or diseases with which each kind mentioned is associated.
5. Describe the pathologic lesions in typhoid fever.
6. Give the pathology and the clinical history of locomotor ataxia.

7. What is the Widal reaction? Give the technic of an examination showing this reaction.

8. What adventitious sounds may be heard in auscultation of the heart?

9. In a typical case of diabetes mellitus what is the condition of the urine as to (*a*) specific gravity, (*b*) color, (*c*) odor, (*d*) quantity voided, (*e*) constituents?

10. What diseases may cause occlusion of the common bile duct?

11. Give the periods of incubation, of invasion and of eruption of the acute exanthematous diseases.

12. Describe the value of the microscope as an aid to diagnosis in (*a*) suspected diphtheria, (*b*) suspected gonorrhea, (*c*) suspected tuberculosis, (*d*) suspected nephritis, (*e*) suspected leprosy.

13. What is understood by immunity from disease? Illustrate.

14. Give some of the causes of vomiting. What characteristics of vomited matter may be useful in making a diagnosis?

15. Differentiate abscess of the liver and cancer of the liver.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

FRIDAY—9:15 A. M. TO 12:15 P. M.

" * * * in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its State board of medical examiners."

Laws of 1893, ch. 661, § 146.

Questions prepared by the board of examiners representing the Medical Society of the State of New York.

1. Give the therapeutic uses of eucalyptus and mention its preparations.

2. Give the causes of hemoptysis.

3. Of what is lupulin an alkaloid? State the doses of the preparations of lupulin.

4. State the uses of ergot other than its use in obstetrics.

5. Define catalepsy and give its etiology and prognosis.

6. What part of senna is used in medicine? State the physiologic action of senna.

7. Describe the therapeutics of sulfonal. State the dose of sulfonal.

8. Give the symptomatology of scarlet fever.

9. Mention *three* alkaloids of opium and state the dose of each.

10. Describe the therapeutics of oxygen.

11. Define Hodgkin's disease and outline its treatment.

12. Mention the official preparations of ammonia. State the effect of ammonia on the heart.

13. Give the therapeutic uses of naphthalin.

14. Outline the treatment of pernicious anemia. Give the prognosis of pernicious anemia.

15. State the action of medicinal doses of camphor on (*a*) the skin, (*b*) the circulation.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

FRIDAY—9:15 A. M. TO 12:15 P. M.

Questions prepared by the board of examiners representing the Homeopathic Medical Society of the State of New York.

1. Differentiate arnica and hepar sulfuris in boils.

2. Give the symptoms of baptisia in typhoid fever.

3. State the therapeutic uses of asafetida.

4. Differentiate the coughs of rumex crispus and bryonia.

5. Describe the headache of sanguinaria canadensis.

6. Describe the headache of lilium tigrinum.

7. Describe the eye symptoms of bryonia.

8. Give the indications for sabina in metrorrhagia.

9. Describe herpes zoster and give treatment.

10. Differentiate lachesis and lycopodium in diphtheritis.

11. What condition in scarlet fever calls for arum triphyllum?

12. Give the indications for *three* remedies curative in orchitis.

13. Give the symptoms and treatment of gall-stone colic.

14. Differentiate measles and small-pox.

15. Describe the diarrhea of croton tiglium.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

FRIDAY—9:15 A. M. TO 12:15 P. M.

Questions prepared by the board of examiners representing the Eclectic Medical Society of the State of New York.

1. Give the specific indications for the use of aconite. State the dose of the tincture and of the extract of aconite.

2. Describe the treatment of pneumonitis.

3. Give the treatment of typhoid fever.

4. Mention the preparations of opium.

5. When is belladonna specifically indicated?

6. Give the causes and treatment of jaundice.

7. Give the cause, symptoms and treatment of diphtheritis.

8. Give the treatment of a case of erysipelas.

9. Give the specific treatment of syphilis in the first stage.

10. Give the indications for the use of muriate of ammonia. State the dose of muriate of ammonia.

11. When should crataegus oxyacantha be used? State the dose of the fluid extract of crataegus oxyacantha.

12. Give the symptoms and treatment of urticaria.

13. What are the preparations and uses of serpentaria?

14. Give the medicinal treatment of a case of hemorrhoids.

15. Give the treatment of a case of hysteria.

Max Meyer M.D.

Professor of Chemistry and Toxicology; Lecturer on Histology, Pathology and Bacteriology in the Eclectic Medical College of the City of New York; Ex-Officer of the Health Department of New York City; Physician Macy Mutual Aid, etc. City of New York.

Henry Marion Silver, M.D.

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THE MEDICAL BRIEF

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Editorial.

Asclepias.

Doctor, did you ever try asclepias tuberosa in those conditions where the skin is dry and hot, the secretions all stopped? If not, the next case of this kind which you have, give fifteen to twenty drops of the tincture, or a decoction of the root in tablespoonful doses. You will be astonished, amazed and wonderfully pleased at the results. Asclepias is a perfectly harmless remedy, indicated in all cases where the skin is out of order. It is compatible with any and everything.

There are a great many plants and remedies on the market having equal virtues in their respective spheres, but the doctor and his patient can not get the benefit of them because the doctor has never tried them. That is why we do not make progress in therapeutics faster than we do. The doctor sticks to routine medication. If his patient is helped, well and good; if not, the doctor has done all he knows. No science can ever be built up by any such haphazard method as this. The doctor ought to know about the various remedies. He ought to make his knowledge more and more precise until he can assign each remedy to its exact place in the treatment of disease. He should use it in that place and in no other. We know doctors who use one remedy for nearly everything. Sometimes they get results and sometimes not. There is no accuracy or scientific certitude in such work as this.

Try asclepias, doctor, and your success may pull you out of the old rut by putting you in the humor to try other preparations. The Editor uses Lloyd's asclepias. Some one else may make some just as good, but we don't know it. It pays to stick to what we know is good, and not worry over whether it benefits Lloyd or not.

Vitality.

We read a good deal about vitality. What is vitality? What do we mean by it? Who can answer this? One man tells you that a certain microbe is dan-

gerous. Another man says that that particular microbe has a special mission to perform, and that it is not dangerous to one who has sufficient vitality to offer normal resistance. One man says of another that his vitality is so great as to postpone the inroads of old age indefinitely, other things being equal. Again, we read somewhere of a child who has so little vitality that it is impossible it should live to any great age. A certain man's recovery against enormous odds is ascribed to his vitality. Another succumbs to a most trifling ailment. One man can abuse his powers, indulging freely in food and drink and other habits which we have been taught to look upon as injurious, seemingly with impunity, when in another the slight infraction of the known laws of health is followed by severe suffering. All due to a difference in this mysterious something called vitality.

Now what do these people mean by vitality? What do you mean? It is like asking the question, what is life? It is probably the most interesting and hardest to answer of the thousand and one questions which are constantly staring the doctor in the face.

One man says cultivate your vitality and your system will resist the tuberculous microbe. Now, what we want to know is, what is this vitality which we are to cultivate? We want somebody who has thought about this matter to some purpose to suggest something. Let us all give our views and see what we can make out of it.

"Surgery, Gynecology and Obstetrics."

The above is the title of a new journal just issued. Dr. Franklin H. Martin, of Chicago, is the managing editor, with Allen B. Kanavel, M. D., as associate editor. They will have the valuable services of Drs. Senn, Murphy, Andrews, Beasley, Webster, Dudley, Hollister, Holmes, Bacon, Bachelle, and Cubbins. The first issue was July 1st, and along these special lines we can only predict success to such a journal. This journal has our hearty approval, and we hope our friends will not overlook the fact that it is published monthly, at Chicago, at $5.00 per year.

[Written for the MEDICAL BRIEF.]

Treatment of Chronic Bronchitis in the Aged.

BY H. J. CUMMINGS, M. D., C. M., M. R. C. S. (ENG.), L. R. C. P. (LOND.),
Professor of Diseases of the Chest and Clinical Medicine in the Barnes' Medical College.
St. Louis, Mo.

This common complaint which is, perhaps, the cause of more deaths in temperate climates than all others put together, often taxes the ingenuity of the physician to the utmost. If more care were taken to complete the cure of acute attacks in middle life this dread disease of old age would be greatly minimized. It is only in the early attacks that there is any possibility of a cure if the patient remains in a changeable climate.

In cases which have existed for some time, the only possibility of a cure is in removal to a warm, dry climate during the winter months, such as Florida, California or Arizona. Unfortunately most of the patients are unable to change their abode during the winter months, and are compelled to undergo the increasing discomfort as years go on.

Treatment.—If treated at home, our first attention should be to the general health, especially to the digestive organs, Any diet that produces flatulence greatly increases the patient's discomfort, and any tendency to constipation should be carefully looked after. Warm clothing, the avoidance of draughts, etc., are of the utmost importance, as well as the avoidance of breathing cold air on going out.

Our medicinal treatment will vary, of course, with the character of the distressing cough from which the patient suffers, and our aim should be not to embarrass Nature by checking her efforts, but rather to stimulate and increase the fluid secretions. Of all drugs, perhaps, ipecac best meets this condition, combined with the preparations of ammonia, which have a tonic effect in increasing the force of the respiratory efforts. Iodide of potash or ammonia is of great service, not so much as an expectorant as in causing absorption of the inflammatory products beneath the mucosa.

In cases where the expectoration is too great in amount, a preparation of the dif-

ferent balsams have an astringent soothing effect, limiting its amount. Belladonna and its alkaloid, atropine, also act well, but if pushed too far, gives rise to great discomfort. Moist air will relieve cough and dyspnea, especially inhalations of steam impregnated with turpentine or tincture of benzoin.

It is a great mistake to use the preparations of opium to allay cough and produce sleep. They are absolutely contraindicated, and although they may appear to give benefit, they are really obscuring the symptoms, and interfering with the activity of the secretions. If sedatives are needed, the bromides are much preferable.

Stimulants are practically indispensable in all cases, and should be given freely and regularly. Their benefit will be apparent in slowing the pulse and respiration, improved cutaneous circulation, improved appetite, and a general sense of well-being.

External Applications.—Counter irritation to the chest in any form is beneficial. during acute exacerbations, whether it be of mustard plaster, stimulating liniments or a simple cotton jacket.

Diet.—Diet should be of the most easily digested character; fluids given in small quantities often repeated. Milk, if digested, is, perhaps, the best of all; rich broths, from which all fatty matters have been removed. It is wise to administer nourishment and medicinal expectorants at the same time, thus avoiding disturbing the patient, and any irritation to the stomach. The chances for a cure are very remote, although the patient may be made comfortable for many years.

1201 Grand Avenue.

[Written for the MEDICAL BRIEF.]

Yellow Fever.

BY J. H. WHITE, M. D.,

Surgeon U. S. Public Health and Marine Hospital Service; Lecturer on Hygiene and Tropical Diseases in the Medical Department of University of Alabama. Mobile, Ala.

Yellow fever is an infectious disease, characterized in general by one paroxysm of fever coming on suddenly, short in duration, and accompanied by a peculiar nongradation of pulse rate, the most pronounced symptom other than this being the jaundice which gives it its name. As to its etiology, it is conveyed solely by the mosquito known as stegomyia fasciata. This fact was fully proved by the experiments of Walter Reed, Surgeon U. S. A., and which, briefly stated, were the exposure of non-immune individuals in screened rooms to all manner of fomites supposed to be infected by yellow fever, without results; these experiments seemed to prove that yellow fever was not and could not be conveyed by fomites. At the same time he exposed other non-immunes in an absolutely non-infected neighborhood, and again in thoroughly screened rooms, to the bite of the stegomyia fasciata, and in these cases a large percentage of the persons so bitten showed symptoms of yellow fever at the end of from two to six days. It is not desirable to take up the space necessary to go further into Reed's experiments, but pass on to the observations made just before this time by Surgeon Carter, of the Marine Hospital service in Mississippi during the yellow fever epidemic, which observations were made entirely independent of Reed, and exactly agree with all of Reed's findings.

Stated briefly, he found that a man sickening in a certain house, say on September 1st, did not render the house dangerous until about twelve or fifteen days after he became ill, this being illustrated by the entire immunity of persons visiting this house up to the twelfth of the month, but subsequent visitors are almost invariably stricken with the disease in from two to six days after spending a short time in the house, and they in turn becoming sick present the same history.

Now Reed's experiments showed that a mosquito to become infectious must bite a yellow fever patient during the first three days of his fever, that the infection remained latent in the mosquito for ten to twelve days. Note, therefore, if we add these two periods of time together we have the period of from twelve to fifteen days noted by Carter in his observations.

Symptomatology.—The clinical symptoms of yellow fever, while fairly marked in pronounced cases, are not sufficiently distinctive to prevent this disease from being mistaken for malaria or enteric

fever. The onset is generally sharp, a pronounced chill, accompanied by headache and backache. Temperature, from 101° to 103° F.; pulse at the beginning reaches as high as one hundred and twenty, but before the close of the first twenty-four hours there is a recession of this pulse rate which continues until convalescence is reached, when it may be as low as forty.

On the first and second days, venous stasis is pronounced, and the complexion assumes a dull brick red color. The temperature may either remain stationary or rise slowly while the pulse is falling. After the second day there are generally some indications of jaundice, first observable in the conjunctiva, later over the integument. This jaundice is more often of a lemon yellow rather than the deep orange observed in some types of malarial jaundice, and jaundice from hepatic obstruction. On the third or fourth day albuminuria will be found, sometimes merely a trace in mild cases, and sometimes quite pronounced, but if looked for with sufficient care it is seldom or never absent, though it may be very evanescent. In no case should the test for albumen be made so carefully as in a case of suspected yellow fever.

The text-books in most instances convey the idea that yellow fever is a disease characterized by two paroxysms separated by an intermittent. The observation of the writer tends toward the conclusion that the so-called intermittent is the beginning of recovery, and that any subsequent outbreak of the disease, instead of being a third stage of the disease, may be simply a relapse from dietetic or other blunders in treatment.

This was the opinion of Dr. Robert B. Murray, than whom no man ever saw more yellow fever, or had so much knowledge of it, and on whose methods of treatment I base my own. Treatment consists first in an assurance that the bowels are freely opened by whatever means are most convenient, the preference being for calomel or a saline, that the terrible headache and backache which accompany the initial chill, should be met by some reliable analgesic, and the diet confined to practically nothing for the first seventy-two hours, followed by just the barest suggestion of broth containing no solids whatever. And the final return to solid food should be made with even more care than in typhoid fever. It will be observed that no specific treatment whatever has been resorted to, nor is any necessary. Quiet and rest, and particularly rest for the alimentary canal, seems to be the thing most necessary.

It appears to the writer that nothing regarding this disease is of so much importance as prophylaxis, when the spread of the disease can be so readily accomplished. Bearing in mind these premises: 1st, that the disease is conveyed by an insect, infected twelve or more days; 2d, that the insect must receive his infection during the first three days of the patient's fever; 3d, that the insect continues to be infectious until it dies. It is evident then that we must secure the death of any infected insect well within the twelve day limit for which he becomes potent for evil; 4th, that we must prevent any mosquito from biting any fever patient.

These ends can be accomplished by screening off houses, as far as possible, and by making sure that any room in which any fever patient is resident is made a sure prison for any mosquitoes coincidently resident there also, until such time as the patient is well enough to be removed to another room, and the mosquitoes destroyed, as they can be, by burning two pounds of sulphur to every thousand cubic feet of air space, and leaving the room closed for twenty-four hours. Pyrethrum powder may be burned as a substitute, using same quantity as in case of sulphur and carefully sweeping and dusting up stupefied insects. If this is faithfully done, there can be no spread from that room, and it is a duty to follow up this method wherever cases show themselves until ultimately the epidemic is wiped out.

Marine Hospital.

Enclosed find my check for one dollar for the great old MEDICAL BRIEF. I do not think any doctor can practice medicine successfully without the MEDICAL BRIEF.—P. H. CRUTCHFIELD, Bethlehem, Ky.

THE MEDICAL BRIEF

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[Written for the MEDICAL BRIEF.]

A New Cap Film Treatment for School Ringworm.

BY DAVID WALSH, M. D. (EDIN.),
Physician to the Western Skin Hospital.
London, England.

Among preventible diseases it would at first sight appear that ringworm would be one of the easiest to prevent in actual practice. Not only is the malady confined to the surface of the body, where it is practically confined to certain definite areas, but its cause is an easily recognizable coarse fungus, with the natural history of which we are now, thanks to the labors of Sabourand and others, well acquainted. Indeed, there is hardly to be found a more interesting chapter in the history of modern scientific research than that which records the gradual evolution of our knowledge of the etiology of ringworm.

The first accurate description of ringworm was given by Willan in 1817, but for many years afterwards it was still confused *with alopecia areata*, eczema, and other affections of the scalp. It was not until the year 1843, however, that Grüby found the fungus which he named *microsporon audouini*. He detected this fungus in the broken-off hairs, noted by Cazenave, in a school epidemic, together with more or less bald patches spreading at the periphery. To this fungus was ascribed alopecia areata, as well as favus and ordinary ringworms.

This confusion was partly cleared up by Matruslen, in 1845, who described the fungus of ringworm under the name of *tricophyton ton surans.*

Duclaux was the first to grow the tricophyton fungus in fluid media, but the main credit of differentiating the small and the large spored varieties rests with Sabourand.

In 1886 Duclaux produced aerial fructification by artificial cultivation of the tricophyton.

In 1894, Sabourand published his classical book, in which he established the plurality of the ringworm fungi.

Our position with regard to ringworm, then, has been revolutionized during the last century. In spite of all this enormous addition to our knowledge, however, treatment has lagged far behind. The outlook for the individual patient, therefore, is little better than it was in the days of scientific darkness, when fungus and antiseptics were alike unknown. At the same time, the medical man called upon to treat ringworm has gained one definite advantage, inasmuch as with the aid of the microscope he is now able to detect certain forms of the malady which are capable of rapid and certain cure.

There is hardly any disease for which more certain "cures" have been vaunted at one time and another. The list of such

remedies includes blistering, Coster's paste, chrysophanic acid, chrysarobin, formalin, glacial acetic acid, goâ powder, iodide of mercury, Harrison's treatment (precipitation of iodide of mercury by use of two solutions), hydronaphthol, oleate of copper, oleate of mercury, resorcin, salicylic acid, sulphur, tincture of iodine, turpentine, and many others. Three cures that have been most popular of late have been salt, formalin, and the X-rays. So far as we can at present judge, there is a future before the X-ray treatment. Of that, however, as of formalin and some of the best of the other methods, it may be said that while all of them cure some cases rapidly, none of them cure all cases rapidly, while sometimes every single one of them fails altogether.

In other words, the specific method of cure of ringworm remains to be discovered. Under careful, skilled treatment we may hope to cure the majority of cases within six or eight months, or, perhaps, within a year, yet there are many which, in spite of skilled and laborious care, last for two or three years or more.

Aldersmith* describes a very chronic form under the name of "diffuse ringworm," in which there are one or more large irregular patches, often extending over nearly the whole scalp, due to coalescence in places. This form is often mistaken for seborrhea or chronic squamous eczema, and its diagnosis can often be determined only by the aid of the microscope. Aldersmith mentions one case that was under treatment for seven years.

Under these circumstances the gravity of the disease becomes apparent when we recall the fact that ringworm is above all things a school malady. Not only is it highly infectious, but owing to the peculiar ways of children it is extremely liable to be conveyed from one to the other. By some mysterious law the interchange of caps seems to be one of the elementary observances of the playground. In any case, the spread of the infection is so rapid in this disease that the introduction of a single case of ringworm into a school is certain to involve a number of the scholars if not at once detected. To some extent the rapidity of extension is determined by the social status of the pupils. Thus the disease is common and widespread in the poor-law and the county council or board schools, whereas it is extremely rare in the private or public schools of the well-to-do classes. In the same way, ringworm is one of the commonest diseases in skin clinics, whereas it is rarely met with in private practice. These facts show that the prevalence of ringworm amongst any set or class of children is mainly a question of environment. But behind all the discouraging facts of the case, we find the redeeming hope of salvation in the preventible nature of ringworm. Sooner or later there can be little reasonable doubt that preventive measures will sooner or later stamp out this scourge from our school community.

The good work has been already begun so far as regards the poor-law children of London. Several large "ringworm schools" have been organized, and affected children are sent thither from ordinary poor-law schools in various parts of the metropolis. Isolation is thus secured without interference with education, while at the same time each patient is placed under constant skilled supervision and treatment. The experiment has not yet been long enough in operation to show whether the bulk of poor-law ringworm is undergoing any marked diminution. The official report of the dermatologist of the ringworm schools, however, proves once again the obstinate nature of the disease, even under conditions most favorable to successful treatment.

For instance: On the 31st December, 1902, there were left in the school one hundred and sixty-four children, and during the year 1903 fifty-five new cases of ringworm of the scalp have been admitted, making a total of two hundred and nineteen cases under treatment during the year 1903. Of these new cases, two were re-admissions, and twelve were transferred from another school. Of the two hundred and nineteen cases, sixty-three were discharged cured, and twelve others were taken out of the institution still uncured.

In the council and board schools, with their scattered scholars and daily attendance, it would be out of the question to

* Ringworm, H. Aldersmith. M. B. 4th Ed., p. 98.

treat the matter from quite another standpoint, and bring constant pressure upon parents to send back to school children suffering from ringworm. Physicians attached to a skin clinique are familiar with the question repeated week after week as to when a "ringworm" patient may go back to school. As a matter of fact it is the exception, according to the experience of the present writer, for the children of the poor to attend hospital until a ringworm is cured. The obvious inference is that the blandishments of the attendance officer have prevailed, and that the child has returned to school to swell the capitation grant of the schoolmaster, and incidentally to spread ringworm to the ultimate loss and damage of the community. Surely, it is the clear duty of school authorities to keep their scholars free from ringworm. Yet experience has shown that the most dangerous of all cases in a school are unsuspected ones, under which heading would naturally fall the partially cured cases brought back to the school by the perverted energies of the attendance officer.

After so much destructive criticism the reader will probably be relieved to find that the situation is not to be regarded as altogether hopeless, and that the main object of the present article is to point out a plan by which the main difficulties in the treatment of school ringworm may be overcome. The mountain may not come to Mahomet, but Mahomet may go to the mountain. If we cannot isolate school children suffering from ringworm, it is, nevertheless, easy enough to isolate their scalps. By encasing the shaved scalp in an impervious envelope, we shall obviously prevent the spread of infection from that particular scalp. Incidentally, we can, at the same time, apply, perhaps, the two most powerful indirect methods of treatment of ringworm yet introduced, namely, X-rays and epilation.

My own plan is to have the scalp shaved and exposed to the X-rays. The bare scalp is then rubbed with turpentine, washed with soap and water and painted with some germicide, such as a weak solution of formalin. The scalp is then painted with several coats of a ten per cent solution of salicylic acid in collodion. On the second or third day a fresh coat of collodion is applied, or sooner, if there be any tendency to crack. After a week or ten days the collodion film is forced up the eighth of an inch or so by the growth of the healthy hair. The loosened cap film can then be cautiously stripped off with little pain, if carefully managed. Its under surface will be found shaggy with stumps of hair, both diseased and healthy. The ringworm hairs will show the irregular, twisted appearance with which one is familiar on the ringworm scalp. In addition, some of the fungus-laden hairs will be whitened, due presumably to the ether in the collodion and possibly also to the salicylic acid. If the cap can not be removed without causing too much pain, a pair of curved scissors can be inserted between the film and the scalp, and removal can be greatly facilitated by snipping through some of the hairs. In this way a wholesale depilation of sound hairs may often be effected, but there need be no fear of permanent baldness, as the hair soon starts a regrowth. A great advantage is that many of the soft short ring-worm stumps come away also on the film, being gently, but firmly, extracted by the traction of the slowly elevated collodion cap.

If desired the cap film can be strengthened by rubber solution, by painting with Unna's zinc gelatine, or by fastening on with collodion strips of jaconet, cotton wool, or sticking plaster. When once the principle of the impervious and adhesive envelope is grasped, details can be readily worked out. In the same way it will be possible to find substitutes for collodion, which is a somewhat costly drug to use on a large scale.

The advantages of the cap film treatment of ringworm are:

1. Infection of other children is prevented by the isolation of the affected scalp.

2. Treatment is shortened by the constant process of depilation attained by taking advantage of the inherent force of growing, healthy hair.

3. Education is not interfered with under this plan.

4. Cure is hastened by the systematic and recurrent removal of affected hairs.

5. Treatment is practically limited to reshaving and refilming the scalp once every week or ten days.

6. X-ray treatment can be cautiously applied through the film.

In conclusion, it may be pointed out that the stamping out of school ringworm under the above or any other plan can not be attained without skilled medical supervision. Microscopical examination is in many instances absolutely necessary for correct diagnosis as well as for prognosis, and to ascertain when a cure has been effected. To carry out the cap film treatment would demand the services of a dermatologist skilled in the observation of ringworm, as well as of a trained staff of nurses and a barber. Whatever form prevention may ultimately take, it is safe to predict that sooner or later educated public opinion will demand of our sanitarians the expulsion of so preventable a disease as ringworm from our school population.

[Written for the MEDICAL BRIEF.]

Morbid Thoughts.

BY T. OUTTERSON WOOD, M. D., F. R. C. P. (EDINBURGH); M. R. C. P. (LONDON),

Senior Physician to the West End Hospital for Nervous Diseases, Welbeck Street, and President of the Medico-Psychological Association of Great Britain and Ireland. London, England.

Some of the most distressing cases of uncertifiable mental disorder are those in which the patient, although perfectly sane in the ordinary sense, is yet tormented with what are called "horrid thoughts." These are generally described as almost unbearable, producing a feeling of misery, uncertainty and depression which impels the patient to seek medical advice. These "horrid thoughts" frequently take the form of a suggestion to do something dreadful, to kill some one, to set the house on fire, to destroy themselves; and they recur so repeatedly that life becomes a burden. Then there comes the thought, "Is life worth living?" and, "why not end it?" This leads to a contemplation of the means to be adopted, till the patient is haunted with the thought of suicide. In all other respects the mental and physical condition presents nothing seriously abnormal, and, fortunately, as a rule these patients sleep fairly well; they take their food and go about their daily work, but in a somewhat absent-minded fashion, during which there is a mental struggle between the recurring morbid thought and the reasoning, self-controlling power. Although as a rule these cases do well, and gradually so far overcome the tendency to give way to the morbid thought as to drive it into the background till it fades out of consciousness, there is nevertheless always a lurking danger of a breakdown of mental control, and the development of an impulse which may end in disaster. It is during the silent watches of the night, and especially towards the early morning, if by chance the patient is awakened from sleep, that the danger is greatest, for the morbid thought is there in all its intensity, and it requires a strong effort of the but partly awakened consciousness to overcome its suggestion. This suggestion, however, does not partake of the character of "self-suggestion" as understood by the hypnotist; it is a morbid thought, which rises into consciousness without any reference to the wish of the individual, and it is more like the implanted suggestion made to the subject when in the hypnotic state. If a person is hypnotized, and the same suggestion is made to him over and over again, on awakening from the hypnotic condition the suggestion will automatically rise into the consciousness, and the patient will act upon it, even after a considerable lapse of time, in accordance with the suggestion made.

The following cases illustrate the kind of morbid thought I refer to:

Case 1.—Miss L. W., age twenty-nine, consulted me on account of a state of mental depression from which she suffered, brought on by a "horrid thought" that was constantly coming into her mind. It mattered not where she was or what she was doing, the thought seemed to force itself upon her consciousness; "Do something to yourself." "Do what?" she would ask herself, and try to reason the matter out. She had so far invariably overcome the suggestion to do something to herself because her reason told her it would be a wrong thing to do. Yet the thought continued to so torment her that

she became afraid she would some day give way to it and destroy herself. She went in daily dread of it, and become so depressed and absorbed in the mental struggle with it that her family became alarmed at her condition, and she was brought to me for advice. She was perfectly sane and sensible, and discussed the matter with me with perfect clearness and coherence. She said she felt confident if she could only get rid of this "horrid thought" she would be as well as ever she was.

Case 2.—Miss A. M., age twenty-seven, the second child of a family of six. She states that in September of last year the thought came into her mind that she might do something to herself, and since then it has constantly recurred, and has made her feel so ill and wretched, because she fears she may give way to this "horrid thought." She has not, however, contemplated any special method of self-destruction, but the feeling is always present, and she seems as if she can not forget it. She says she knows she is quite sane, and too sensible to do anything, but it has made her very depressed and miserable. A brother and sister have suffered from mental depression.

Case 3.—Miss E. S. The thought comes to her "That's the devil," and it mixes itself up with her work, so much so that when engaged with needlework she seems as if she is sewing the words into her work, and she has great difficulty in preventing herself doing so. This thought was started about twelve months ago, and she blames her brother (having then committed suicide by cutting his throat) for starting it. Although she is quite sensible and rational, she feels depressed at the recurrence of the thought.

Case 4.—Mrs. M. K., ever since the Whitechapel murders, has had horrible thoughts, suggesting to her to do something dreadful to those around her, to commit murder or destroy herself. She is a married woman with one child, two and a half years of age. She is neurotic, has nystagmus, as also have one brother and a sister, and her mother's eyes also were "always on the work." I brought these cases before the Medical Society of London in 1896, and they are recorded in the "Transactions" of that Society as three cases of congenital nystagmus occurring in the same generation of the same family.

Causation.—In most of these cases there is a distinct neurotic condition, and the family history generally shows that there has either been insanity, intemperance, or nervous instability in other members of the family. The predisposition to mental trouble is the rule, and easily traced. The exciting cause is usually some sudden mental shock—a fall, a blow on the head, or some strong impression caused by reading of accidents or murders in the papers. Domestic worry, especially in connection with the affections, is a frequent cause. In some cases there appears to have been no exciting cause whatever, the morbid thought arising into consciousness, an unwished-for and an unwelcome guest, which has come to stay there until overcome and forgotten.

Treatment.—In the majority of these cases there is a general disorder of the bodily functions. There is dyspepsia, constipation, and monthly irregularity of the female generative organs. The appetite fails and is capricious, the bowels act spasmodically, and the general health is impaired all around.

The first indications are to improve the general health. If there is insomnia, a dose of twenty grains of sulphonal each alternate night will produce refreshing sleep. A mixture of soda bicarbonate, gentian and ammonia before meals three times a day, and a pill of compound rhubarb, three grains, and blue pill, two grains, each alternate night, will restore digestion and procure healthy action of the bowels. The removal to cheerful surroundings, if possible, and, if that can not be arranged, the introduction of an outside element into the family circle, will stimulate self-control and self-confidence by the interchange of healthy thoughts and ideas, and will tend to strengthen the power of resistance to the suggestion of the morbid thought. Then a nervine tonic in the form of fifteen grains of bromide of ammonium, fifteen minims of spirit of chloroform and five minims of tincture of nux vomica, in an ounce of cinnamon water, an hour after breakfast, and after the mid-day meal, and in the evening, will tend to steady the nervous

centers and improve the general tone, producing a feeling of rest and composure, and allaying nervous irritability. The effect of treatment carried out on these lines is usually all that can be desired, and the usual result is banishment of the morbid thought, and health of mind and body. In some instances I have found hypnotic suggestion of the greatest value in blocking these morbid thoughts out of the patient's mind, and producing a rapid and satisfactory condition of mental tone. The treatment should be continued daily for a week at least, and is well worth the time and trouble expended. Cheerfulness and self-confidence stimulated, and the duration of the case materially shortened.

[Written for the MEDICAL BRIEF.]

Diabetes Mellitus.

BY MAX MEYER, PH. D., M. D.,

Professor of Chemistry and Toxicology; Lecturer on Histology, Pathology and Bacteriology in the Eclectic Medical College of the City of New York; Ex-Officer of the Health Department of New York City; Physician Macy Mutual Aid, etc. City of New York.

The morbid anatomy of this disease is obscure, and the following lines may throw some light upon the matter.

Albuminates, carbo-hydrates and fat, the greater part of our daily food, being mixed with the digestive ferments, are conveyed into the blood circulation. A real chemical decomposition of the so-prepared food molecules neither takes place in the intestines nor in the blood, but exclusively within the cells of assimilation, which possess inherited chemical and biological forces to split up the food molecules, selecting those which become necessary for the maintenance of life, and excreting those which are of no use. This cell chemism, highly active in the healthy body, becomes impaired, even ceases under pathological conditions, the result of which is known as disease. Still the body is living, and needs vital energy, but the cell chemism is unable to bind enough energy of the food molecules for the maintenance of the organism, hence it loses in size and increases in tenacity of the tissues.

This condition marks old age, and in diabetes mellitus we find the same state of affairs, *i. e.*, premature senility of the cells.

The healthy, active cell changes the food molecule into nutritive substances, and the waste material as urea, carbon-dioxide, salts, etc., is thrown off, but the presenile cell has not power enough to convert the complex compounds into useful mediums; it labors under the stress of weakness, and is only able to transform starches into dextrin, and then into sugar. Here its strength is exhausted. The cells gradually fill up with sugar, this by osmosis passes into the blood, and is filtered out by the kidneys, and finally we find the sugar now in the urine.

If we compare the symptoms of senility with diabetes mellitus, we find both to be similar.

In conclusion, we can say that the danger does not lie in sugar production, which is a symptom merely, but in the premature senility of the cells, hence in our therapy we must lay stress to bring them back to active normal life, which is the external battle between the free and combined affinities of a non-saturated chemical union.

127 East One Hundred and Fifteenth Street.

[Written for the MEDICAL BRIEF.]

An Interesting Case of Fibro-Sarcoma, Involving the Tendon of the Gastrocnemius Muscle.

BY HENRY MANN SILVER, M. D.,

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A. S., aged thirty-six, born in Roumania, did business in Havana, Cuba. Ten years ago he noticed a small swelling in the muscle of the calf of the leg. This increased very slowly for about seven years. During all this time there was little or no pain, when pain suddenly developed, and the tumor began to increase rapidly in size. Another tumor formed towards the popliteal space. In a few months a third tumor formed above the second; meantime all the tumors grew slowly. About six months ago a fourth

tumor appeared, lying in the lower portion of the outer side of the popliteal space.

The patient now began to experience pain of a shooting character in the middle and outside of the leg.

Some weeks ago he consulted three surgeons in Havana, two giving a positive statement that the tumor was of the simple fibrous variety, while the third surgeon rendered a diagnosis of malignant sarcoma. The patient was further advised to come to New York for treatment.

On examination I found a tumor about the size of a small egg, situated in the upper portion of the central tendon of the gastrocnemius, with three tumors above the larger one in a chain extending upwards towards and in the lower portion of the outer side of the popliteal space.

These tumors were hard, and were slightly movable, not painful on pressure; no enlargement of the superficial veins. Very slight enlargement of the inguinal glands in both groins, also in the neck. No history of syphilis. Operation was advised, further treatment to depend upon the report of the pathologist.

On operation, the lower and larger tumor was found to be firmly connected with the central tendon of the gastrocnemius. There was no connection with the muscular fibers. The smaller tumors were found to be connected with the aponeurosis of the muscle, the upper tumor lying in close proximity to the external popliteal nerve. The tissues about the tumors were freely removed, and the wound closed.

A specimen was at once sent to Dr. F. E. Sondern for examination. At the end of three days he reported that the tumor was a fibro-sarcoma.

The report of the pathologist was explained to the patient's friends, as well as the importance of a second operation.

After consultation with Dr. A. Brothers, the patient decided to have his thigh amputated, which was done, the patient passing through the operation and reacting well.

The amputation was advised because there was no evidence to be found in the groins or in any secondary involvement of the tissues.

5 East Forty-Third Street.

[Written for the MEDICAL BRIEF.]

Treatment of Congenital Dislocation of the Hip by the Lorenz Method of Manipulation.

BY SCOTT PARSONS, M. D.,

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St. Louis, Mo.

When Prof. Adolph Lorenz demonstrated his bloodless method of reducing congenital hip dislocation at the Polyclinic, in St. Louis, I had the honor of being invited to his clinic, and that I was pleased with the original work of this operator, is to say the least. The ease and grace with which this muscular man manipulated and handled the delicate limbs of his unfortunate little patients was a source of great surprise to me, and to all those present, and also an agreeable disappointment, as my idea of the method, gleaned from the literature on the subject, was that considerable force was requisite to accomplish the reduction. And this idea prevails among those who have not seen this method demonstrated. True, there is a wrenching, stretching and sometimes a lacerating of the muscles, fasciæ and ligaments, which are antagonistic to a restoration of the joint, yet the relaxation and control of these barricades of abnormality are obtained only through scientific maneuvers, with a definition of delicacy. There is not nor should not be the least harshness or roughness in the manipulation, and particularly in the fourth stage, or stage of reduction. In fact, the reduction requires less force than any other part of the procedure, provided the steps preceding this stage have been thoroughly and correctly instituted. To the uninitiated the operation may have a brutal aspect, but the treatment is mild, compared with the methods heretofore employed for the relief of these cases. Up to the time of Lorenz, congenital dislocation of the hip was practically incurable, inasmuch as few cases were ever entirely relieved; more were only slightly benefited, and the balance unimproved or aggravated. Perhaps congenital dislocation of the hip has received as much earnest work and attention as any other condition in orthopediatrics, yet it was

left for Lorenz to devise a treatment pregnant with promise, and that a large majority of cures have resulted, not only at the hands of the Austrian, but others, is

Fig. 1. Showing shoulder and sacral supports, also position of leg during application of cast to unilateral dislocation.

verified by the reports. It might be well to state that the success is not attributed altogether to the manner of reduction, but to the after treatment; the position of the leg after reduction, the dressing and general management of the case, following removal of the cast. Congenital dislocations of the hip have been reduced before Lorenz's time (1), perhaps not in the same way, but, nevertheless, the head of the bone has been returned to its normal position, but from this point the methods of treatment were faulty, and it was found impossible to fix the head in the acetabulum permanently, even after months of immobilization. (2). The best result ever obtained by mechanical maneuvers was by Dr. Buckminster Brown, of Boston. Other cases have been reported as cured, where the treatment has been by extension or immobilized in plaster casts of fixative splints, but the results in the large majority of cases has been negative. Besides the treatment by extension and reduction, followed by a fixative apparatus, operative measures have been resorted to with but little success. Tenotomy was one of the earlier procedures and was not without merit. But beyond the tenotomy the treatment was faulty, and in most cases failed in results. Arthrotomy was another noted method advised (4) whereby the femoral head was freed of the attachments and placed in the cotyloid cavity. Others went a step farther, producing arthrodesis, spiking the head to the acetabular rim. (5) Then came the idea of enlarging and deepening the cotyloid cavity with scoop and chisel (6, 7) and finally excision of the head was resorted to (8), but all these methods utterly failed in positive results in any number of cases. Arthrotomies and arthrectomies have been discarded, except in old and desperate cases, where the bodily deformity in the form of lordosis supervenes. By placing the head of trochanteric stump into the socket, or on the rim, even in a fixed position, the leg is brought into line with the trunk, preserving the perpendicular of the body, and correcting or aborting a progressive lordosis. This is a dernier resort.

Lorenz's method of reducing congenital dislocations of the hip by manipulation, consists in the stretching of shortened muscles, ligaments and fasciæ, with subsequent formation of a stable articulation by functional measures. By that is meant that the patient is made to walk for a time with the affected limb or limbs in the position of complete abduction and hyperextension. The operation, for a matter of clearness, may be divided into six stages: (9).

Stage 1. Treatment of Adductors.—The first step after the patient is anes-

Fig. 2. Plaster cast applied, showing maintenance of leg in position of abduction and hyperextension, also method of everting undergarment to cause non-irritating edge.

thetized is to overcome the resistance of the adductor muscles of the thigh. For this purpose the operator forcibly abducts the limb, while an assistant steadies the

pelvis. Keeping the parts thus on the stretch the operator, by repeated "hacking" strokes, made with the ulnar border of the hand, at a point a little below the

Fig. 3. How cast is worn. The leg in the "Lorenz position" before application of the high shoe.

attachment of the muscles to the pelvis, produces a subcutaneous division, not only of the whole of the adductor longus, but also of parts of the deeper lying adductors.

Stage 2. Treatment of Extensors.—The contractured muscles of the posterior aspect of the joint are stretched by forcibly flexing the hip. In doing this, the knee is kept extended, and the limb is bent upon the trunk with intermittent movement of a swinging character, until the foot can be carried up to the shoulder.

Stage 3. Treatment of Flexors.—The patient is now turned onto face and the muscles on the front of the hip joint are forcibly stretched by producing successive movements of hyperextension of the hip, with the knee fully flexed. At the end of this stage, the heel can be made to touch the buttocks. In order to test when sufficient stretching has been produced, downward traction is made on the limb to see whether the head of the bone comes down, as evidenced by the trochanter being brought to the level of or below Nealton's line.

Stage 4. Reduction of the Dislocation.—This important step for which the previous stages are preparatory, is begun by completely flexing the hip, the knee being bent to a right angle, and the thigh slightly rotated inwards. A wedge may now be placed behind the trochanter. The flexed limb is then fully abducted by bringing it into the position of right angle with the trunk, and the knee and foot are in a frontal plane, posterior to the mesial frontal plane. As this movement is being concluded, the head of the bone can be felt by the operator to clear an obstacle; this is the moment of "reduction." Before the reduction, there is an unnatural hollowness of Scarpa's triangle, but as soon as reduction has been accomplished, the head of the femur occupies its normal position, and pushes forward the psoas and other soft parts, thus filling up the hollow.

Stage 5. Stretching Capsule.—The next procedure aims at stretching the anterior fibers of the capsular ligament. For this purpose the pelvis is raised upon a support, *e. g.*, a sand bag or padded wedge, and held firm, while the operator intermittently strains the abducted limb into

Fig. 4. Anterior and posterior view of a cured case, (unilateral) by Lorenz method, having worn a cast nine months, a postural steel brace, three months, and under treatment in all fourteen months. Notice the symmetry of the two sides. The right leg was the one dislocated.

a marked degree of hyperextension. The pressure is brought to bear on those fibers adjacent to the anterior or inner rim of the acetabulum.

Stage 6. The Application of the Plaster of Paris Apparatus.—The patient is raised, the sacrum resting on a small padded plate supported on a crutch. The shoulders rest on a small padded stool of the same height. The limb, or limbs, if both have been operated on, are held completely abducted and hyperextended. A pair of woven woolen drawers without buttons are put on, and an ordinary muslin bandage, three inches wide, drawn between the skin and the drawers on each side that has been operated on. Next, an ample covering of common dressmakers' wadding, cut into bandages, is applied, so as to envelope the lower part of the abdomen and the whole of pelvic region, and to cover the thigh (or thighs, if both hips have been operated on) to a point just below the knee. Separate additional pads are placed below each anterior superior spine, and above each internal femoral condyle. This investment of wadding is held in place by a few turns of gauze bandage. The nates, perineum and pubes are completely enveloped in wadding. The plaster of paris bandages are then applied over the whole area previously covered. The perineum is completely covered by a figure eight bandage around both legs. Before the plaster has set, the patient is removed from the support and the plaster case is cut down to the shape desired. (See accompanying photographs.) This is accomplished with a sharp cartilage knife and scissors. As the plaster dries, the drawers are cut and turned back to make a non-irritating edge. The bandages that were placed between the patient's skin and the drawers are used for daily friction of the skin; in order to protect the cast along the line of the perineum, soft towels or gutta percha tissue may be fastened to the edge of the cast and changed as often as necessary.

THE AFTER TREATMENT.

Lorenz recommends that the cast be left on for about six months. As soon after the operation as the child is able it should be allowed to get up and made to walk upon the operated leg. A high-soled shoe, from two to four inches, is placed on the foot of the operated leg, and the child given crutches, or allowed to hobble from bed to chair, until such a time as he gains control of the leg sufficiently to walk without support. When both legs have been operated on, the patient can stand by holding a staff in the hand, and can hobble sideways in either direction, or can sit on a small wheeled seat which is moved by the feet. Daily passive and active extension movements are practiced at the knees to overcome rigid flexion. At the end of five or six months when the cast is removed, the glutei muscles are greatly wasted and require daily massage until fully recovered. Passive and active movements of the hip are daily practiced until the leg can be brought into line with the body. This is the most anxious part of the treatment and much depends on the way in which it is carried out. The course of treatment varies from one to two years.

New Features of the Operation.—The most important step in the manipulation is the complete relaxation or severance of the adductor muscles, for without this the leg can not be hyperextended or fully abducted. The manner of dressing and the position of the leg, are entirely original with Lorenz, and perhaps to this feature alone is due the success of the operation. The leg is set in complete adduction and hyperextension. In this position the head of the femur is retained in its socket, and an imaginary line drawn from the trochlea surface of the femur through the head and acetabulum would terminate at the crest of the ilium on the opposite side. The leg is kept in this position for several months, during which time the patient is supposed to use the leg in the act of walking. The theory advanced by Lorenz, and which has been proven correct by hundreds of cases, besides *post-mortem* opportunities upon cured cases, was that the continued use of the leg in this deformed position assisted functionally in developing the acetabulum, which was immature; that the pressure on or in the cotyloid cavity, brought about by the weight of the body on the abducted leg, deepened the cavity, while Nature in her efforts to form a joint, would build up the acetabular rim, particularly the superior border. As long as the femoral head was without the acetabulum, the anatomical structure would cease to develop, and after a certain period atrophy

and disappear from lack of use, and that the presence of the head of the femur in its normal socket would stimulate an activity of development, resulting in a stable articulation.

Age Limit.—With an experience of over one thousand cases, Lorenz places the age limit at nine to ten years for unilateral cases, and six to seven years for bilateral. He has, however, exceeded these limits by preliminary treatment of extension and tenotomies, and in one case was successful at the twenty-third year. (10).

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Notes on Tendon Transplantation in Infantile Paralysis.

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Since Nicolidoni first operated for infantile paralysis by transplanting tendons, a large number of operations have been devised more or less successful in character according to individual cases. There is no one operation which will fit every case, but by combining the experience of the various men who have worked in this field it is possible to improve all cases of infantile paralysis, in which some muscles remain intact. The various operations may be grouped into two divisions.

1. Those in which sound tendons are transplanted into paralyzed tendons; and,

2. Those in which sound tendons are attached to bone, either through the medium of artificial tendon lengthening, or fastened directly to the periosteum.

The first class comprises the majority of the paralyses involving the muscles of the foot. In the second group the muscles of the leg and thigh will be found most applicable. Taking the foot after the plan of Lange of Munich, we find it is capable of four movements—dorsal and plantar flexion, and inversion and eversion. These movements are performed by groups of muscles, which may be weakened or strengthened by taking one or more muscles from an intact group, and transplanting it so as it will perform the function of the weakened group. The transplantation may be readily accomplished in the majority of cases by simply exposing the tendon by a long incision, and transplanting directly to the side of the foot where it will have the desired action.

For this purpose I have found the method of Lange to be of great service. This method consists in exposing the tendon to be transplanted, under aseptic precautions, running a heavy silk thread through it, holding it firmly and transplanting it under tension at the point where the desired force is to be exerted.

The wound is then closed with small gauze drainage, put up in plaster, and allowed to remain undisturbed for three weeks, except for the withdrawal of the drainage which is removed at the end of twenty-four hours.

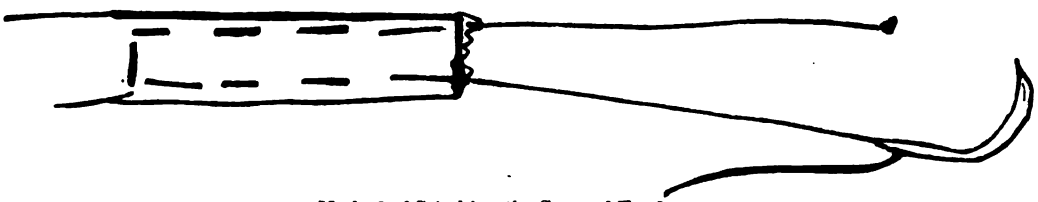
In the case of the knee in which usually the anterior flexor muscles are involved, it is often necessary to transpose the hamstring tendons to the front of the leg, causing them to become flexor. This is accomplished in much the same way. The hamstring tendons are exposed and severed as near their insertion as possible, the No. 12 silk thread is stitched into them, as in the accompanying diagram. (See following.) The double threads are then brought up from the back of the thigh subcutaneously to the wound previously made just above the patella on the anterior surface of the thigh. The same procedure is accomplished with the other hamstring and the four strands of silk appearing at the anterior opening are now braided together firmly. Another opening is made over the anterior tuberosity of the tibia and this braided silk string is carried subcutaneously over the opening above the patella to the one below it. The

tendons are now drawn taut and held so by an assistant while the operator with a heavy curved needle stitches the strand firmly into the tuberosity of the tibia, boring forcibly into the bone. The wounds are then closed, gauze drainage inserted if necessary, the gauze drains being fastened by threads which afterward protrude through windows in the plaster cast. The wound is now firmly encased in plaster, plenty of padding being used to prevent rubbing. The gauze threads are removed through windows of the cast at the end of twenty-four hours and the cast taken off at the end of three weeks.

These little patients may be allowed to walk at the end of four weeks following the operation, care being taken to prevent contusions or other injury to the skin overlying the artificial silk tendons. These tendons may be allowed to remain in place indefinitely, the history in the majority of cases being that they become a framework for the deposits of embryonic connective tissue cells which subsequently become organized. At the fifth or sixth year the silken strands will be found to have been absorbed. In some cases the silk tendons, either through strain or injury, prove a source of irritation under the skin and may have to be removed at a later date. This happened in two of my cases in which the artificial tendon was removed at the end of sixteen months, another at the end of twelve months. This removal, however, did not interfere with the efficiency of the result, as the connective tissue formation at this time became strong enough to carry out the function of the silk alone.

The following five cases have been under observation for more than a year after operation and amply demonstrative the feasibility of the artificial tendon.

J. C., aged thirteen, had an anterior poliomyelitis involving both legs, the left less in degree than the right, although the left foot had no movement in the ankle. The right knee was flexed from contraction of the hamstring muscles. The right foot had intact the tibialis anticus and the Achilles tendon. Operation performed January 27, 1904. An attempt was made to shorten all of the anterior tendons of the left foot to prevent "foot drop." The tibialis anticus was divided into two parts, one part being left in the normal situation, and the other half attached to the perineus longus. The right Achilles tendon was also divided, one-half being inserted into the tibialis posticus. The biceps femoralis was divided above its insertion, the artificial silk tendons introduced as above described and elongated with the No. 12 silk. These artificial tendons were carried up to the front of the thigh, braided and inserted into the tuberosity of the tibia. The patient made uneventful recovery; no suppuration apparent, and six weeks afterwards was able to disregard the crutches he had used all his life and walk with two canes. He is now able to walk about the house without artificial aid, but feels safer in walking out of doors with the aid of a cane. In this case the artificial tendon over the right knee became a source of irritation following a fall, which weakened the skin over it. The artificial silk tendon was removed July 2, 1905. This extension is perfect, however, at the present time.



Method of Stitching the Severed Tendons.

D. H. (operated July 6, 1904), aged five; had infantile paralysis at the age of two, involving the right leg, which cleared up, leaving only the perineal muscles paralyzed. The tibialis anticus was split over the instep and half of it carried subcutaneously into the os navicularis at the outside of the foot. In this case the foot was very much inverted, the patient walking on the dorsum of the foot. After the operation, which was followed by an un-

eventful recovery, the foot remained in perfect position for five months. She then struck her foot on the point of a rocker, causing the old wound to break down and the stitches had to be removed. This is the only failure among the five cases reported.

M. B. (operated June 23, 1904), aged nine; had infantile paralysis at the age of one. The principal muscles involved were the extensors and adductors of the right thigh. These partially regained their function, but the child threw out the right leg in walking, creating quite a noticeable deformity. The hamstring muscles were intact, as well as the sartorius. The sartorius was severed at its insertion and carried up and stitched to the patella at its upper border. Extension was much improved and the child now walks with very little deformity.

G. H., aged ten, was afflicted at the age of three with anterior poliomyelitis, leaving him with complete paralysis of the muscles of the left foot and of the extensors of the right foot, but the Achilles tendon of the right foot was preserved. Shortening of the tendons of the left foot was performed to overcome the left "foot drop." The Achilles tendon of the right foot was lengthened by the Bayer method. The right hamstrings inserted into the tuberosity of the tibia, as reported in the case of J. H. The result was eminently successful, as he is now able to walk with a cane, where he was unable to walk at all before. The artificial tendon over the right knee had to be removed on June 11, 1905, but extension is still perfect.

K. S., aged eleven, was operated on July 9, 1905. Anterior poliomyelitis at the age of two months; inversion of the right foot. Half of the tibialis anticus was inserted at the tibialis posticus and the extensor longus pollicis was inserted into the periosteum at the head of the first metatarsal bone. The results were eminently gratifying, the deformity of the foot having entirely disappeared and walking is almost perfect except for a genu recurvatum which was present before the operation and which we hope time will relieve.

In these cases I have demonstrated beyond doubt the success of tendon transplantation and also demonstrated the ability of the body tissues to tolerate such a foreign body as the artificial tendon for an indefinite length of time.

It was the writer's privilege to see thirty cases which had been operated on in the above manner by Dr. Lange of Munich, at from three to seven years after the operation. All of these cases presented favorable results. The writer also saw several specimens of silk which had remained in the tissues from three to five years and they presented under the microscope varying stages of organization. The embryonic cells seemed to penetrate the meshes of the braided silk and became organized there, forming in time ideal tendons. Too much care can not be used to protect the tendons from injury in the first year or two after operation, but the cases cited above show that the silk may be removed without special harm after a period of one year has elapsed. Whether in these cases there has been a true formation of cicatricial tissue to take the place of the tendon or whether the separated tendons have become adherent to the tendon of the quadriceps femoris the writer is unable to state. The result, however, is a great improvement over the previous condition.

Before leaving the subject of the treatment of infantile paralysis it is well to emphasize the importance of early and prolonged massage, electrical treatment and hydrotherapy in the early stages of this disease. Braces should not be applied if it is possible for the patient to walk without them, as the brace in a great measure prevents the development of the uninjured muscles. In suitable cases nerve transplantation may take the place of the tendon transplantation, possibly with far better results, but not enough data is at hand at present to enable us to compile any statistics on this operation.

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[Written for the MEDICAL BRIEF.]

Electricity in Medicine.

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Unfortunately for the general and successful utilization of electricity in medicine, a far more intimate acquaintance with its physics and physiology, and with the laws which govern the action of its various manifestations on living tissues, is demanded of the general practitioner, than he can claim to possess. In the first place he must recognize the fact that electricity is not simple, single manifestation of force, but a generic term, susceptible of so many modifications of its units of measurement that we get various currents so called, differing so widely in their effects that these currents may be almost said to differ in kind as well as in degree.

For this reason I have always held that to correctly differentiate between the various manifestations of electricity, and select the form most suitable, is one of the most important and difficult problems in electro-therapeutics. The foundation principles on which must rest the use of electricity in disease is the recognition of the fact that electricity, or rather electrization, besides being a local stimulant or sedative, according to the method of its application and the pathologic condition that prevails, exercises at the same time an influence over general and local nutrition at once unique and unrivaled.

To make our applications exclusively local is both illogical and inconsistent, since in the use of electricity, as in the use of every other remedy, constitutional diseases should be treated constitutionally. The best method of bringing the whole system under the direct influence of electricity is by some form of general electrization. If the faradic current is used by general faradization; if the galvanic, by central galvanization—or by the use of static electricity or of the high frequency currents of D'Arsonval. In this way the success of electro-therapeutics is materially enhanced, and its sphere very greatly widened, so as to include a variety of frequent and distressing constitutional morbid conditions for which merely local methods of treatment are but imperfectly indicated. To those who adhere to the long accepted theory that electricity is merely a means for local stimulation, and, as such, chiefly indicated in conditions of paralysis or chronic rheumatism, or who hope to reduce electro-therapeutics to an exact science on the basis of a complete physiology or pathology, these statements may seem quite erroneous, and especially so if they have studied the action of electricity on the body merely by localized applications. The narrow doctrine of merely local stimulation is being rapidly abandoned, and the fact accepted that we have in electricity an unsurpassed means of improving the general nutrition in the immense variety of chronic morbid conditions where such results are chiefly indicated.

Now, in determining the differential indications for the use of local and general methods of electrization, we need to consider several things. In the first place, general electrization with whatever electric modality, directly affects the whole body, while localized electrization is mainly confined to the part to which the application is made.

Then, again, general electrization may by sympathetic or reflex action, indirectly, have a special therapeutic influence on some special part or organ; while localized electrization of any part, but especially of the sympathetic or cerebro-spinal axis, by sympathetic or reflex action, may indirectly have a general therapeutic influence on the whole body. Electrization, where judiciously attempted, very rarely injures and usually more or less benefits even those parts which are in comparative health.

This consideration has an important practical bearing, especially in the use of general electrization, in case of doubt as to the seat of the disease. Still, again, in nearly all cases it is important, and in many cases it is indispensable that the applications should be made to the seat of the disease as well as to the locality of the symptoms.

Scientific electro-therapeutics therefore requires the most accurate preliminary diagnosis; above all, it is important to rigidly discriminate between the diseases which are of a constitutional, and those which are of a local origin. From these fundamental considerations, we logically derive the general law that constitutional diseases are better treated by general and local diseases by localized electrization.

We have here an interesting point in connection with what are termed localized and general methods of electric treatment.

With the so-called dynamic forms of electricity—the galvanic and the faradic currents, with which were first associated the terms, localized and general electrization, approximate localization of effects is readily accomplished. The threads of current widely diverge, it is true, as they pass from pole to pole; but if the electrodes are placed in close proximity, with the locus morbi between them, the electric force is, for the most part, only locally expended, and the general system, little if at all directly affected. With static electricity and the high frequency currents of D'Arsonval, it is difficult to obtain this absolute localization to the exclusion of constitutional effects. Whether this might not be in certain conditions a disadvantage is, perhaps, a question. In a few exceptional cases we are inclined to think it a disadvantage.

As an illustration, reference is made to a case of chronic arthritis of long standing, in which the static vibratory or wave current relieved the pain, and seemed likely to prove of permanent service, but the general vibratory influence, which it is impossible to suppress, caused such nervous disturbance that the treatment had to be abandoned, and the galvanic current substituted. Fortunately such cases are very rare; the general effect of the wave current, instead of being harmful, is distinctly beneficial, supplementing and reinforcing the local effects.

For this reason, in cases of doubtful pathology or doubtful location of the disease, the constitutional nutritive effects of static electrization or of the static wave current may improve both the local and general condition.

If the faradic current is used, the method of general faradization acts in the same way; if the galvanic, the method of central galvanization.

Much of the discouragement that has followed the use of electricity in disease has been due to the fact that constitutional diseases have been treated locally. Morbid constitutional conditions, such as hysteria and neurasthenia, anemia and rheumatism, which, as all are agreed, demand remedies that affect the system, have been treated electrically only through their local symptoms, such as peripheral paralysis, and gastric disturbance, or neuralgia and inflammation of the joints. These local symptoms may often be relieved undoubtedly by simple local treatment, but permanent relief can scarcely be expected from any treatment that is not general or constitutional.

When only the galvanic and faradic currents were at our command, it was far more simple and easy to give local than general treatment. Now, however, in the use of static and high frequency currents, local includes general treatment; consequently, the results are, in numerous instances, better than when the other modalities only were in use.

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Management of the After-Coming Head.

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In discussing the management of the aftercoming head, we must distinguish between those cases, first, in which the head has entered the pelvis and has only to overcome the resistance of the peritoneum; second, cases where the head is retained at the brim by pelvic contraction; third, where retained by stricture of the os uteri; fourth, by extension of the anus and chin; fifth, by insufficient expulsive action of the uterus and abdominal muscles.

The subject, as I take it, means the proper and most successful measures used in the delivery of the head after the body of the child has been expelled in cases presenting by the breech, feet or

knees, and since the mechanism and management of these differ but little, we class the two latter with the former. And since a proper understanding of the mechanism and management of the body which precedes the head has much to do in the successful management of the aftercoming head, I would therefore call attention, first, to the management of breech cases, at least to the particular points which we should remember are preparatory to the delivery of the head. We have, as we regard it, three causes, one or more of which, if the case is not managed according to Nature's mechanism, may result in the death of the child, viz., pressure on the umbilical cord; secondly, the severing of the utero-placental attachment while the head is delayed in the pelvis, or at the brim; thirdly, compression of the placenta between the fundus or walls of the womb and the head of the child; and may I not add another cause, viz., that of the too early pulling upon the body of the child by the physician in his haste to deliver, and thus dislocates the neck. By hastening the body through the pelvis, too, the uterus failing to contract as rapidly as the body advances, the arms by friction on the uterine walls are extended above the head, and by the same cause normal flexion of the head is lost and extension is produced, causing the chin to hitch on the pelvic brim, and a lesser diameter of the head exchanged for a greater one, one wholly unable to engage in or pass through the diameters of the pelvis.

None of the foregoing causes can result in the death of the child if the case can be so managed as to prevent the delay of the head, so on finding we have a breech case to contend with, the first point to be considered is the need of thorough dilatation of the soft parts preparatory to the easy delivery of the head; therefore, the liquor amnii should be preserved until it has done its full work in that respect, for another one of the dangers to which the child is exposed and which should have been mentioned in the foregoing list, is the defective dilatation of the os, which contracts about the head and neck of the fetus at the moment of delivery, causing death by asphyxia. In the management of all breech, foot or knee cases, presenting spontaneously, or made to do so by version; in order that the aftercoming head may pass the excavation in the best possible way the mechanism of both breech and shoulders, as well as that of the head, should be conducted in such a way as will, if possible, bring the head, well flexed, with its longest diameters (which when normally flexed is the suboccipito bregmatic) into the longest diameter of the pelvis. To do this we prefer the first position of the breech, in which the sacrum is found at the left ileo-pectineal eminence, or cotyloid region (left sacro anterior). In this the longest diameter of the breech (bistrochanteric) engages on the left or shortest oblique diameter of the pelvis, with the toes, after having passed, pointing towards and under the right thigh of the mother. And when such is the case, if not interfered with by meddlesome midwifery, the aftercoming head will meet with but little, if any, trouble in passing, from the fact that in this case the long diameter of the head on reaching the pelvis will engage in the longest of the pelvic diameters, the right oblique—it being the general rule for the head to take the opposite oblique diameter to that of the breech. In breech cases, therefore, it is best to do nothing but patiently wait until the birth of the breech, refraining from trying to hasten matters by bringing down the feet. Delay during early stages of labor is not dangerous, but prepares the parts by prolonged dilatation for subsequent easy passage of the aftercoming head.

When the body has passed to the umbilicus, gently pull down a loop of the cord and place it in that part of the pelvis where it will be least likely to pressure, viz., in the first and third position of the breech; if possible, in the left sacroiliac region, and in the second and fourth in the right. Its pulsations must be watched, its increased feebleness proclaims danger to the child. The body must be held in such a manner as not to impede rotation of the shoulders into the antero posterior diameter of the outlet, but, if necessary, rather favor it. When the shoulders are born, the back of the child is directed to the pubic symphysis and thus promote anterior rotation of the occiput and during the birth of the head lift the body

of the child towards the abdomen of the mother. That is to say, let the child be laid astride of one forearm, and the hand which belongs to it passed into the vagina until its first and second fingers rest upon the malar bone of each side, while the other hand is hooked over the shoulders, with the neck between the first and second fingers and their tips upon the supraclavical region. Let an assistant then press the head downwards by suprapubic pressure in the axis of the superior strait and both hands of the operator make simultaneous traction, as nearly as possible in the same direction, the internal hand at the same time exerting itself to preserve the necessary flexion of the head. As the head emerges let the line of traction sweep forward in the curve of Carus, until at the end the child rests upon the abdomen of the mother. I should add that when the mouth appears at the vulva all hurry should cease and the operator's efforts should be directed to the preservation of the perineum. All traction should cease and with the upper hand promote flexion by restraining the descent of the occiput, and the other used to shell out the head by pressure on the forehead through the perineum, or if necessary by passing two fingers into the rectum. This method (Deventer's, introduced in 1715, subsequently fell into disuse, only being brought into notice again three or four years ago by several prominent American obstetricians), is a simple and rapid procedure and is worthy of trial in any case where the shoulders can be readily brought into view. By this method the aftercoming head, even with the extended arms, can be extracted together by simple traction on the feet and shoulders.

The method is this: As soon as the shoulders have appeared at the vulva the body of the child is swung well backward, the feet being grasped by one hand and the shoulders by the other and both hands make traction simultaneously and directly downwards towards the floor. By this maneuver the arms, which lie by the side of the head, are pressed against the yielding and elastic sacro-sciatic ligaments, the chin being arrested by the pelvic floor; extension occurs, the occiput appears at the vulva, the head is born by extension, the occiput in front and chin in the rear, and the arms easily follow.

The advocates of the method believe that it never tears the perineum and my own rather limited experience with it certainly supports this somewhat astounding claim. The ease and rapidity with which the delivery of the aftercoming head can sometimes be affected by this maneuver is surprising. Further experience may develop contra-indications to it, such, for instance, as in dealing with a pelvis under normal size, or a head above normal in its diameters. In advising this method, reference is only made to those cases where the shoulders have appeared at the vulva and the head already in the pelvic cavity. Of course, it is inapplicable when the head and arms are arrested at the superior strait, for when the child is large or the transverse diameters of the pelvis is diminished, the wedge formed by the head and arms is often too large to pass the superior strait. In such a case the release of the arms must be effected before the head can enter the pelvis. The extraction of the arms from the superior strait is a much more difficult matter than their release after they have entered the pelvis and is effected by a different maneuver. Such an arrest occurs at or about the time when the points of the scapula appear at the vulva and before the back is wholly turned to the front; and unless it can be overcome by very moderate efforts, all traction should cease and the thorax should be grasped by both hands, pushed slightly upward to relieve the impaction and rotated, if necessary, until the antero-posterior diameter of the child is nearly, if not quite, transverse to the pelvis. The feet should then be seized by the hand which corresponds to the back of the child and drawn firmly upward and to that side toward the groin of the mother. This answers the double purpose of drawing the posterior arm further into the pelvis and of making room for the passage of the operating hand into the vagina. The free hand is then rapidly passed along the abdomen of the child to the posterior shoulder and one or two fingers are passed along the arm and hooked into the bend of the elbow, which is then drawn downward and across the face into

the vagina. The hand is then swept out of the vagina pressing upon the forearm, applied as near the wrist as possible, thus bringing the arm down and out. The feet are then drawn downward or backward, and the same hand is passed over the abdomen to the anterior shoulder and the attempt made to pass two fingers behind the symphysis to the bend of the elbow, which if reached is to be drawn downward across the face, as was the posterior arm. But if the attempt is not speedily successful, the hand should be withdrawn, and the hock of the child rotated across the front, that the retained arm may become posterior. This rotation can be effected in the interval of pain by grasping the thorax of the child with both hands, pushing the child slightly upwards and then rotating the thorax, or it can be done by traction in the proper direction upon the prolapsed arm. And when the retained arm is thus made to occupy a posterior position, it is then brought out, precisely as the first. In rotating the child it should always be remembered that the articulations of the neck are such that if the point of the chin be carried behind the point of the shoulder, dislocation of the atlas upon the axis is the result. For this reason the thorax should be pushed strongly upward whenever an effort at rotation is made, in order to free the head from the superior strait.

Should the circular fibres about the cervix, or an imperfectly dilated os, close down upon the neck of the child, which occasionally occurs, especially if ergot has been given, then the circumstances become much more embarrassing, and any attempt to overcome the obstruction by force exposes the woman to the most imminent danger of rupture of the uterus; and though steady and gentle traction should be given, which may effect dilatation in time to save the child, it is in these cases that the application of forceps to the aftercoming head is most often indicated. There can be no doubt of the truth of Lusk's observation that the forceps, which should always be at hand in such cases, will sometimes bring the head rapidly through the cervix, when traction upon the feet only serves to drag the uterus to the vulva. Care should, however, be taken that this rapidity be not too great as in itself to cause serious laceration.

Most German and American obstetricians believe that the use of continued traction upon the face and shoulders is the best method to adopt in arrest of the aftercoming head at any point in the pelvis, and it should certainly be the first method tried in any given case; but as cases frequently occur in which the head can be delivered with far greater ease by a rapid alternation between different methods than by the continued use of any one alone, it is for this reason, if for no other, well to be familiar with all the methods which have been found to be of value.

Prague's method is to seize the feet with one hand and draw the body backward as far as the perineum will allow; the other hand is hooked over the shoulder and traction made with both hands simultaneously; as the head enters the excavation the body is swung rapidly upward and the remainder of the delivery is accomplished by upward traction upon the feet, while the hand upon the neck promotes flexion by retarding the descent of the occiput. If by any clumsiness of the operator the abdomen of the child is directed to the front during the liberation of the arms, or otherwise, and the chin therefore arrested at the symphysis, the Prague method should be used throughout, only differing from it in this, when occiput is front, and at the brim, traction is first made backward; but in chin front and at symphysis traction is first made horizontal, and as the occiput descends the body of the child should be raised until, when the head emerges from the vulva, the line of traction is nearly parallel to the mother's abdomen. The only disadvantage to Prague's method lies in the fact that all the force exerted by the operator is expended on the child's neck, therefore less force can be safely applied than in the combined method.

At the present time many believe the use of the forceps to be the most certain means of overcoming difficult cases of high arrest of the aftercoming head. The operation, however, is often difficult and the time occupied in the application of the forceps may be of vital importance to the

child. Moreover, there are but few cases in which a skilled operator, especially if aided by supra-pubic pressure, fails to deliver by manual extraction; but as such cases do occasionally occur, the forceps should always be at hand before podalic version is attempted, or when we find an aftercoming head has to be dealt with. Fortunately, the arrest of the head by extension is rare, unless as the result of improper traction, and when it does occur may often be overcome by internal pressure on the face of the child, aided by suprapubic pressure on the forehead; but if this fail traction should be upward, over the mother's abdomen, combined with traction upon the shoulders; at same time with the opposite hand will draw the occiput over the perineum.

If forceps are necessary, they should be applied under the child's body and to sides of the head and should then be extracted by the same mechanism. When the aftercoming head is arrested at or near the lower strait it is extremely rare that the combined method will fail to extract it, but if forceps be required the application and extraction are both simple and easily performed. In ordinary forms of pelvic contractions the arrest of the head is always at the brim. A breech presentation should never be allowed to persist as such in a justo-minor pelvis. If the child is not under the usual size the head will always be arrested at the brim, unless extreme flexion is kept up, which is not likely to be the case. Cæsarian section would bring the best means of relief. Only in flat pelvis the head enters the superior strait in the transverse diameter and the passage of the strait is most easily effected in a slightly extended position, so that one pole of the bi-parietal diameter may be received by one of the sacro-iliac notches, while the lesser bimastoid diameter opposes the contracted conjugate. Then, if on passing the hand into the vagina for combined traction finds the head transverse, we should allow extension to go on until the face begins to approach the side wall of the pelvis, or until the greatest diameter has passed the superior strait, and when this has occurred flexion should be promptly effected, and rotation and delivery will promptly follow.

In using forceps for the delivery of the aftercoming head the axis traction appliances are particularly serviceable. In all cases of aftercoming head every means necessary for the restoration of suspended animation in the child should be provided beforehand.

42 Rutledge Street.

[Written for the MEDICAL BRIEF.]

On the More Frequent Use of the Aspirating Needle as a Means of Diagnosis.

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In this era of medicine, when the whole trend of things is toward the exact, where diagnosis of disease is not considered established until verified by chemistry and the microscope, it behooves the surgeon to follow the steps of his medical colleague, and before resorting to the use of the knife to fully confirm his opinion by every means possible.

As for instance, in the case of suspected abscess, it is not well to rely simply upon the local symptoms of pain, fluctuation, swelling, etc., but to make use of any more accurate means, notwithstanding how simple the case may appear to strengthen the diagnosis. It can hardly be denied that one of the most important instruments in attaining such an end in all cases of fluctuating tumors is the aspirating needle.

The use of this instrument in this connection is not new by any means, but how seldom, except in the most obscure cases is it resorted to? How often are we satisfied with the seeming correctness of our surmises, and jab a knife into a soft, fluctuating tumor without any thought of the possibility of a mistake, and sometimes to our great sorrow.

I know of two instances, in the hands of good surgeons, where axillary aneurisms were opened for supposed abscesses, and the patients' lives, in both cases, only saved by the employment of prompt and imperative measures.

It was once my misfortune to open a traumatic aneurism in this manner. The

patient on this occasion was an old woman, who, while drunk, had fallen and received a lacerated scalp wound extending down to the bone on the upper and posterior aspect of the head. The wound after being drawn together, healed nicely without suppuration in a few days. About four days after the patient's discharge, she presented herself again, complaining of a painful, inflamed, non-pulsating and fluctuating swelling at the site of the original injury. Thinking, as it so often happens in scalp injuries that it was a pus formation due to the early union of the superficial structures, thereby shutting off all drainage, I, without further thought, plunged a knife into the tumor, and was rewarded by a gush of blood that spurted at least three inches from the wound. It was a diffused aneurism. Because of my not being able to find from within the sac, the opening of the bleeding vessel, hemorrhage was arrested by understitching the artery through the scalp. Bleeding during the six succeeding days recurred five times from the sac, each time coming from a different artery, and was only finally and permanently controlled by the complete encircling of the wound with interrupted sutures, and by turning out a partly organized clot, curetting the interior, and packing the cavity.

While the result was all that could be desired in this case, the writer would have escaped a very unpleasant experience had he made use of the precision advocated in this article. Now, I make it a routine practice, no matter how evident the presence of pus in a certain locality may appear, to substantiate it by the use of the aspirating needle.

In opening an abscess, the advice generally given is to plunge the knife in quickly, thereby overcoming the resistance offered by the abscess wall, for it is well known how difficult it is, when this quick movement is not employed, to penetrate a soft pus cavity. This sudden stabbing motion has always seemed to me a very unsurgical procedure, which, in certain regions becomes extremely dangerous, as after the instrument is once started in this way, all control of it is lost until the limit set is reached.

In order to do away with the quick movement of the knife, and to minimize as much as possible the danger of injury to neighboring structures and organs, I have, for a number of years, made use of the following method in opening up pus collections:

An aspirating needle, made as thoroughly aseptic as possible, and attached to a hypodermic syringe, is inserted into the suspected abscess, and the presence of pus confirmed by its appearance in the barrel of the syringe upon withdrawing the piston. The needle is then partly withdrawn, so as to leave the point within the abscess cavity, then turned and made to transfix that part of the wall and the overlying structures, emerging again on the cutaneous surface.

Now we have the intervening tissues and that portion of the abscess wall held firm on the transfixed needle, so that now the incision can be made with care, and precision, excluding the possibility of cutting anything but the structure between the needle and the skin. If the pus is not deep, and so situated that no organ or structure of any importance is included between the skin and the needle, a knife is merely pushed along the needle as a guide, and the abscess laid freely open. In doing this, it is not necessary to extend the cut to include all tissue on the needle, thereby freeing it entirely, but simply make the incision as long as is necessary.

If, however, the abscess is in a region where there is a possibility of some important structure having been included in the transfixion, a careful dissection on the directing needle can be made down to the pus, and the wounding of such organs avoided.

It is well here to add that in making the transfixion, the needle should be directed so as to run parallel, as nearly as possible, to all neighboring nerves and vessels. The objection to the above method suggested by several surgeons, is that the lifting up and holding rigid of the tissues makes it more liable to injure important structures within them. This objection does not hold good, because any structure that must be divided or avoided can be better managed when held thus than if treated in any other manner. In

addition, any artery included can easily be felt pulsating on the needle, and thereby avoided.

In very deep collections of pus, it may not be possible to turn the needle and make the desired transfixion, then the incision may be made, simply using the needle as a guide. In one instance, in this manner, in a very old woman, whose family had always refused an operation, I was able to open an appendiceal abscess quickly and safely without an anesthetic.

In asking attention to the above methods of dealing with pus formations, it may seem like inviting one back to the rudiments of surgery, but when the many mistakes, often dangerous, that are made by disregarding the means advocated in this article of verifying one's diagnosis, are borne in mind, this subject will appeal as one worthy of serious consideration.

113 West Seventh Street.

[Written for the MEDICAL BRIEF.]

Epithelioma of the Skin.

BY J. M. KING, B. S., M. D.,

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It is unfortunate, indeed, that cancer of the skin is not more readily recognized by the general practitioners throughout the country. So often a patient having a suspicious looking growth on the face, lip, or hand, goes to his family physician for diagnosis and treatment, with utter disappointment. The physician will tell him that he can do nothing for him, and allow him to drift untreated, and even fails to direct him to a physician who makes a specialty of treating cancer along the line of ethical medicine. The patient, like hundreds of others, finally drifts into the hands of the quack. This is common report. It is our duty as practitioners of medicine, if we can not treat these cases, to direct them to men in our profession who have had a special preparation for this kind of work, instead of allowing them to fall into the hands of quacks.

No longer than this morning (May 23, 1905), I read the following, typewritten from the back of a slip of paper, upon which the physician had left his name, at my office:

"Personal: Send us names and addresses of all persons in your community who have cancer or cancerous growths. We will give you one dollar for each patient that we get from your list. ——— Co., Box 167."

Presented with such facts as the above, I consider it timely to review points to be observed in diagnosis of cancer of the skin, and to describe the best methods of treatment with their results.

Let us then first recognize that there are four clinical varieties of cancer of the skin: (1) flat, (2) papillomatous, (3) tubercular or deep seated, and (4) rodent ulcer. While practically the tissue changes with slight exception are the same in all four varieties, the clinical features differ somewhat more widely. Typical epithelioma of the first three forms most frequently begins at a muco-cutaneous junction, but may begin on the mucous surface or on the free skin. The dermatologist most often meets with it on the lip, nose, eyelids, or somewhere on the face. Rodent ulcer more often occurs on the free skin surface on the upper part of the face.

I. The flat epithelioma may begin in several ways: As a small, firm, pearly-looking papule; as a simple wart or mole; as a small keratosis; as a crack in the skin; and on the lip it may commence as a small abrasion, crack or small papule.

A beginning papular lesion on the skin becomes scaly and enlarges vertically and peripherally; at first it is movable with the skin, but finally it becomes adherent to the subjacent tissue, and ultimately within months or years breaks down and ulcerates in a characteristic form. The wart or mole, becoming cancerous, gets red, tender and painful, finally the surface breaks and bleeds, and becomes covered with bleeding crusts; this process continues, and is followed by ulceration. The crack in the skin of the lip oozing, becomes covered with crusts which are easily removed and readily reformed. Finally, the characteristic ulcer develops.

II. The papillomatous variety differs from the flat variety, in that it presents a more elevated, ulcerated, fissured, and warty-looking surface, and this appear-

ance is produced by an exaggerated development of the papillæ of the skin. This variety may begin in a warty growth, or may arise in the flat deep-seated varieties. In its slow growth from any source it usually becomes elevated above the surface, is red, with uneven surface, and may be pedunculated. Finally, the subjacent tissue becomes involved and the deep-seated variety is established.

III. The tubercular type may begin as a nodule located in the chorium or subcutaneous tissue, or it may arise from the other two varieties and from lupus vulgaris. When it begins as a nodule the nodule increases in size in all directions; the covering over it is a livid red and crossed here and there with dilated capillaries. After a few months, when it reaches the size of a cherry or larger, it breaks down and ulcerates. This variety progresses more rapidly than the others, and lymphatic involvement ensues very quickly.

IV. Rodent ulcer begins as a small, flat nodule, with dilated capillaries crossed over it, and it may remain in this condition for years before breaking down and ulcerating.

Sooner or later all the varieties ulcerate, and in the majority of cases some ulceration has taken place before the physician is consulted, and clinical diagnosis then depends upon the recognition of the type of ulcer together with its history and location; we should then possess a mental picture of these different forms of ulcers in order to make a diagnosis from the clinical appearance.

In the shallow typical epitheliomatous ulcer, the growth of the epithelioma is very slow, or the ulceration is chronic and usually covered with crusts, which are readily removed, leaving the red granular base, which readily bleeds upon disturbance, and is bound by an elevated firm rolled border. Sometimes this border has a whitish, pearly appearance, due to the crowded, round-celled infiltration shutting out the blood flow.

The ulcer of the deep-seated variety is more rapid in its growth, as the epitheliomatous development, the essential process, being more rapid. The border of the ulcer is more everted than elevated, but some parts of the edge may be undermined and irregular on account of the greater resistance of the integument. The base is irregular. The products of inflammation are too excessive to allow the formation of crusts; usually the discharge is sanious, but in some cases, probably on account of the secondary infection, there may be a heavy flow of pus; the neighboring lymphoid glands become quickly involved and there is usually neuralgic pain.

The papillomatous epithelioma fully developed presents an elevated, ulcerated, fissured, cauliflower-like surface. The discharge is scanty and there may be crusts in it.

A rodent ulcer is very characteristic, the white, pearly papules from which it develops spread outward, becomes depressed in the center and there ulcerates, and thus the ulcer from the very beginning is surrounded by the characteristic elevated, firm, waxy-like, rolled border. It spreads vertically and laterally, the rodent process slightly in excess of the new growth process attacking the tissue within the band, and in eight or twenty years may destroy one-half the face and eventually the patient's life. There is no pain, odor, no glandular involvement and very scanty discharge.

An early diagnosis and thorough treatment is of the greatest importance to the patient with epithelioma of the skin. The disease in the superficial forms is limited to the chorium for some years, because proliferation of the epithelioma is very slow, and the resistance offered by the fibrous layers of the chorium is so strong, but in time it breaks through this barrier and enters the subcutaneous tissue and develops the deep-seated variety with its lymphatic involvement, thus entailing much greater difficulty in treatment.

The chronic scaly patch on the face of the patient past forty, accompanied with but little itching, should be regarded with suspicion. I would advise in this case that the patient be treated with X-rays. An elevated cone-shaped mole, if it should get red and a little sore and painful, and continue so for some time, should be removed. The pearly, firm, flat papilloma, the size of a pea, developing after forty, and enlarging slowly, should be treated at once. A cut or crack or an

abrasion about the lip which oozes and becomes crusted, and repeats this process until it reaches the chronic state, should be treated without delay.

Superficial epithelioma may be treated successfully by one of three methods—surgical, caustics and X-rays. The X-rays produce the least disfigurement. The removal of all diseased tissue, outlying cells and involved glands is the object of surgical treatment, and anything short of this is not curative but more or less aggravating. If there is glandular involvement or deep-seated epithelioma of the skin, it is generally agreed upon at the present time that removal of the growth and the glands by X-rays offers the only hope of successful treatment.

Caustics, such as Bogars' paste, Marsden's paste, caustic potash, are used with success and good cosmetic results.

Rodent ulcer in the majority of cases should be treated with X-rays alone, as they offer the best results. In some cases, however, it will be necessary to remove some very thick rolled edges with caustics or curette, but we should depend upon X-rays as the curative agent. After considering the advantages of all the methods of treatment for this superficial variety of epithelioma of the skin, I would choose the X-rays. I believe we have in them an agent with which we can come nearer to destroying the outlying cancer cells than with any other means, and that by careful and thorough application the percentage of recurrence can be reduced.

The results obtained by me in three recent cases have been apparently satisfactory, and this is in accord with general reports.

The first case was in an old lady, aged sixty, with a superficial epithelioma on the forehead, near the edge of the hair. This growth had been twice removed by caustics with recurrence. I applied X-rays vigorously without producing any ulceration, with the result that the thickened rolled margin disappeared and the place looks at present perfectly healthy.

The second case was one of a young man aged twenty-one, with a small epithelioma of the size of a pea on the face to the left of the nose. This patient was treated with X-ray to the point of ulceration. Upon healing the surface was left perfectly smooth, a little red with pigmented area.

The third case was a lady forty years of age with epithelioma of the face just in front of the ear. This was removed apparently satisfactorily with the application of the X-rays.

Pusey and Caldwell (page 517), after reporting sixty-nine cases of epithelioma of the skin, with eighty-eight per cent symptomatically cured, the time ranging from two months to two years, say: "There is no reason to believe that there was any other method of treating any of these cases which could have shown as good results. There is less scarring than follows any other method of treatment. Again, the scars that are left are usually soft and smooth, the color of normal skin, or white and entirely healthy looking."

With reference to recurrence after X-ray treatment I refer to Sequeira, of the London Hospital, who has had an experience with more than one hundred cases. He says: "Recurrences are by no means rare, and the question that still is to be decided is whether relapses are due to the fact that some of the outlying cells have escaped the action of the X-ray, or whether they are true recurrences. Some of the cases we have met support the former contention. * * * As a matter of practical import, the recurrences are easily removed by further application of the rays."

Early diagnosis and thorough treatment by whatever means may be used while the disease is yet superficial, are the points to be insisted upon in epithelioma of the skin.

133 N. Spruce Street.

[Written for the MEDICAL BRIEF.]

Minor Details of Physical Diagnosis.

BY L. C. STOCKING, M. D.,
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Many physicians lay great stress upon auscultation and percussion to the almost entire exclusion of other and important diagnostic factors. The day for superficial and "snap shot" diagnosis is past,

and we can not neglect the minor features of diagnosis, even though those features may seem at first vague or of little importance. To the observant doctor the little details which might pass unnoticed by a less carefully trained mind, will give the key to a situation otherwise impossible of accurate diagnosis. We should, therefore, not only drill ourselves, but teach the young aspirant, to know the importance of these minor details. Inspection and palpation are too often hurried over, while percussion and auscultation occupy the whole attention, and thus it happens that such important diagnostic points as pallor, pinched expression of the face, pulsation of the arteries and veins, and position of the patient, seldom receive any attention.

Physical diagnosis does not mean merely to pound and listen; it involves the aid of all the senses to a minute degree. The patient's expression and physique must be studied, his temperament is not a thing to be forgotten. The day for looking at the tongue and feeling the pulse and uttering an immediate diagnosis is past. We must study the physiognomy of our patient; the facial signs are valuable diagnostic agents.

Emaciation, in case of shock, is, for instance, almost the first diagnostic sign which attracts our attention; the oscillating pupil readily diagnoses another condition, and so on indefinitely. The position of the eye is almost a pathognomic symptom in certain conditions.

How characteristic is the position of the lung in certain phases of pulmonary diseases. In asthmatic conditions the patient is unable to lie down, but sits up and grasps the side of the bed chair to assist in bringing into use the auxillary muscles of respiration.

In spinal troubles, the position is also characteristic.

The skin may often give a clear knowledge of the condition of the circulation, and the character of the secretion.

The eyes need to be carefully watched. Here at times we can obtain signs which give us a diagnosis that would otherwise fail. The unconscious man will at first tell us of his condition by an examination of the eye. In opium poisoning we have the pin-point pupil; in uremia we have the dilated pupil; in other conditions we have the unequal pupil, etc.

In giving an anesthetic we must carefully examine the eye for danger signs.

The condition of the tongue will tell us of impaired mobility, one-sided or unequal activity tells us of brain lesion. The dry tongue tells us of deficient secretion; the excessive use of mercurials will cause the opposite effect, salivation. The coloring and coat of the tongue should also demand our attention.

5100 Wells Avenue.

[Written for the MEDICAL BRIEF.]

Boiling Water vs. the Knife.

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This subject is selected to advocate the boiling water treatment in non-malignant growths, and the destruction of veins and sinuses. There are numerous applications to the surgeon for relief from varicose veins, small aneurisms, ranulæ, venous angiomata, and capillary angiomata. From fear of the knife, these patients, both in the adult and child, refuse to be operated on, the individual in the first and the parent in the second instance. This includes a class of patients that can not be reached or cured except by the promise that a knife will not be used, and is contraindicated, but an almost positive guarantee that they will be cured by the injections of boiling water.

These patients do not object especially to an anesthetic, either local or general, but believe that the knife is injurious.

To illustrate: P. G., referred to me by Dr. M. for varicose veins of the left leg. All superficial veins of the leg, internal and external, were really sinuses. This man objected to any operation involving the use of the knife, although he was told that cocainization and ligation of the veins at various points would effect a cure. The entire leg and foot was an eczematous and annoying mass.

Boiling water was used after an Esmarch bandage was applied in the lower

third of the thigh where the veins began to show varicosity. About eight injections were used, one in the lower portion of the thigh, about four on the inner, and three on the outer side of the leg.

As on former occasions, the skin blanched, and the surface became very warm, and it was freely noticeable to all present the change that was taking place in the vein as the boiling water was forced in.

Several sloughs appeared at the site of injection. This patient was in the infirmary twenty-four days; after leaving his recovery was rapid and uneventful. The eczema at the present time has almost entirely disappeared, and he is no more annoyed by the itching and burning sensation that was always present, to say nothing of the "weeping," which is very annoying in these cases.

2312 Fifth Avenue.

[Written for the MEDICAL BRIEF.]

Oral Disturbances from Pyorrhea Alveolaris.

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"Nothing is permanent but the change." The truth of this aphorism holds good in all existing conditions of living organs. A standstill of bodily activity means death—a final dissolution of all organs concerned. Health and sickness, viz., ease and disease, are interdependent upon the perfect working order of all the organs of the body. Imperfect activity as a result of disturbance of the organism, in part or as a whole, will find its expression as local or general disease, which may assume an acute form, and if continuous for a longer period, a chronic type.

At present it is generally recognized that the breaking down of highly organized bodies, when subjected to proper conditions, is brought about by the activity of minute vegetable organisms, the bacteria, producing what is generally known as fermentation; or, under other conditions, putrefaction. The presence of bacteria is primarily instrumental in producing various severe vital changes, which are known as infectious diseases.

One of the diseases which is exclusively confined to the oral cavity, and perhaps the most prevalent type of local infection, is "pyorrhea alveolaris." This disease, next to syphilis, has received the greatest variety of names, which is largely due to the fact that its etiology is still veiled in mystery. The definition, as set forth by Miller in his text-book, is about as satisfactory a one as can be presented under the present pathological conception of this disease. He defines it as a chronic, destructive inflammation of the peri-dental membrane, accompanied by more or less severe inflammation of the gingivæ, and a necrosis of the alveolar process within the area of the affected tooth. That we have no definite explanation of the true causation of this disease finds its explanation largely in the following factors:

1. We still know very little about the pathology of the disease. The material for such experimental work is very difficult to obtain.

2. We have absolutely no critical starting point of the disease. The ordinary symptoms by which it is recognized are the presence of pus, the formation of the pocket, the loosening of the tooth, etc.

3. The incorrect conception of the pathology of the disease has led to a whimsical adherence to old established methods of empirical treatment.

In recognizing an infectious disease it is of importance to remember that two predominating factors are responsible for its existence, the cause of the disease and the action of the disease. From a clinical standpoint we may classify the predominating factors of pyorrhea alveolaris into predisposing causes, local disturbances and bacterial invasion. As predisposing cause we may mention such diseases as scorbutus, rickets, locomotor ataxia, dyspepsia, rheumatism, tuberculosis, anemia, chlorosis, etc. Local disturbances are usually resultant from mechanical or chemical causes or from traumatism. As has been stated, the disease manifests itself in a more or less severe inflammation of the gingivæ, flowing of pus from the alveolus, and the loosening of the tooth. If the tooth is still solid,

tapping with a metallic instrument induces a peculiar sound, and a fremitus which is easily felt by placing the finger over the affected root. The deposit of calcareous material about the tooth is probably the most prominent factor in the production of the disease. This "tartar," as it is called, is not of the soft, yellow, salivary variety, however; it is most likely a special product of crystallization, derived from the exudations of the mucous glands, or some other liquids derived from many sources, which hold lime salts in solution; these deposits are very hard, with sharply-defined edges, of a deep dark color and clinging very tenaciously to the root. They are usually found beneath the free margin of the gum, and the irritation produced by these sharp spiculæ lessens the resistance of the gum to microbic infection, and, consequently, pus infection with all its sequelæ will follow. No distinct micro-organism has so far been found as being productive of this disease. The pus is the result of a mixed infection, the strepto- and staphylococcus are always present in this pus.

As far as the treatment of this disease is concerned, surgical and local therapeutical applications are most important in bringing about an arrest of the progress of the disease. They consist primarily in the mechanical removal of the calcareous deposits. Easy as this seems to be, special training and a thorough knowledge of the anatomical arrangement of the parts is required. Perfect articulation of the teeth should be established and splinting of loose teeth should be obtained by proper bandaging; necrosed tissue should be destroyed, and a stimulating drug applied to influence cell proliferation. General treatment is often indicated, particularly if a general disease is the underlying factor. This, however, is usually of secondary value. The general hygiene of the mouth should be scrupulously maintained, and the masticating apparatus should be in perfect order, for well-chewed is half digested. The harmonious nutrition of the body depends, not upon the quantity of food swallowed, but upon its proper mastication and digestion. Disturbances of the digestive apparatus and many of the more obscure diseases, especially those of the jaws, ears, and the extremely painful neuralgias, can be only too frequently traced to diseased teeth. The preservation of the teeth by prophylactic means should become an unalterable part of the daily toilet. Suitable antiseptic dentifrices are necessary. The full effect of a dentifrice, however, can only be derived when it is employed in the form of a wash. Powder, paste or soap can not do this work satisfactorily, although they are helpful for mechanical cleaning. The destruction of the disease-producing organisms and their removal can only be accomplished by a liquid which will penetrate into the interstices between the teeth. Especially potent in this respect is the presence of free oxygen, which, when brought into contact with decayed matter, will be accompanied by the production of a heavy foam, which forces the material from between the teeth to the surfaces, and from places where the brush can never reach. An effective germicide should be added to the solution. It should be borne in mind that such washes must be absolutely harmless to the hard and soft tissues of the mouth. Absolute cleanliness of all the parts must be maintained and visits at stated intervals to the dentist or physician are necessary to prevent a recurrence of the disease.

Century Building.

[Written for the MEDICAL BRIEF.]

Cholera Morbus.

BY ROLLA L. THOMAS, M. D.,

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Cincinnati, O.

Cholera morbus is an acute affection characterized by nausea, vomiting of serous material, frequent watery stools, colicky pains, and severe muscular cramps, and attended by great prostration.

Etiology.—This is a disease of hot weather, beginning in June, increasing in frequency during July and August, and usually disappearing in September. Bad hygienic conditions predispose to cholera morbus, though the exciting conditions are unripe or overripe fruit, indigestible vegetables, such as cucumbers, radishes, eggplant, etc. Drinking large quantities

of ice water when overheated, or tainted milk or water may also be considered as excitants. It is more frequent among males than females, and among adults than in children, though cholera infantum may be considered the cholera morbus of infants.

Pathology.—No characteristic anatomical changes take place. In some cases, catarrhal changes peculiar to gastro-enteritis are found, while in others no morbid changes are seen.

Symptoms.—The attack generally comes on suddenly, not infrequently in the night, and is announced by pain in the umbilical region attended by nausea, which soon terminates in vomiting. At the same time the patient has an urgent call to stool, which is large, copious and feculent in character. In a short time the retching and call to stool is almost constant and the pain in bowels is intense. The stools vary in character, at first of greenish or yellowish brown color, copious in quantity and of a fecal character; as the disease progresses, however, they early lose their fecal character and consist of a dirty water, even resembling the rice water discharges of cholera.

Very early cramping of the muscles of the legs, toes and sometimes of the abdominal muscles ensues, which is exceedingly painful and causes the patient to cry out with his great suffering. In extreme cases the spasmodic contraction of the muscles amounts to episthotonus.

The prostration is now extreme, the pulse is small, feeble and frequent, the eyes sunken, the face blue and pinched, the extremities cold, the skin becomes relaxed and bathed in a cold, clammy perspiration. If not arrested the patient's strength is gradually exhausted, the patient becomes dull and careless as to his condition, then finally coma and death result. Fortunately this is a rare result, and before the alarming symptoms appear, the disease seems to have expended its force, the vomiting and diarrhea subside and the patient makes a speedy and uneventful recovery, so that after twenty-four or forty-eight hours he is seemingly as well as ever.

Diagnosis.—We diagnose the disease by the large, copious, watery evacuations, pain in the abdomen, retching and vomiting, great prostration and cramping of the muscles. Unless Asiatic cholera was prevailing at the time it could hardly be mistaken for any other disease. Arsenical or ptomaine poisoning would be recognized by the history of the case.

Prognosis.—The prognosis is nearly always favorable, if seen reasonably early. When the patient is old and feeble or a sufferer from Bright's disease, or structural heart lesions, the prognosis must be guarded. If not seen till the stage of collapse, a fatal termination may occur. The only fatality I ever knew in this disease was of this character.

Treatment.—Direct a mustard plaster to the abdomen and hot water bottles to the feet. Internally from a half to a teaspoonful of the comp. tinc. of cajeput every fifteen or twenty minutes will afford speedy relief. If the pain be severe one teaspoonful of chlorodine may be added to ten teaspoonfuls of water and a teaspoonful of the mixture given every fifteen, twenty, thirty or sixty minutes. Or what is better and much quicker in its results, a hypodermic injection of sulphate of morphia—the dose will be from one-fourth to one-half grain, according to the severity of the symptoms. This will not only relieve the pain, overcome the cramps, but generally allays the vomiting and diarrhea.

For the diarrhea, nux vomica and subnitrate of bismuth both prove beneficial. When there is coldness of extremities, a relaxed skin and threatened collapse active measures must be used. Hot applications are to be made to the feet and legs and trunk, or the limbs are to be rubbed vigorously with dry mustard. In extreme cases the patient should be rolled in a blanket wrung out of hot mustard water. Internally, comp. tinct. of cajeput should be given, and strychnia, one-thirtieth grain, be given hypodermically, or what is better still a five per cent solution of camphor and ether administered hypodermically. The dose will be from twenty to thirty-minims as often as the heart's action demands its use.

At the same time a pint of normal saline solution should be given subcutaneously. The diet should be restricted for a few days following convalescence.

732 East McMillan Street.

[Written for the MEDICAL BRIEF.]

Treatment of Yellow Fever.

BY GEO. H. TICHENOR, JR., A. B. (TULANE), M. D. (TULANE),

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Treatment for First Three Days.—Bowels must be flushed to the extent of fifteen to twenty-five actions per day with saline purgatives, preferably either thiosulphate of soda or epsom salts. Fever reduced by hypodermic injections and enemas of saturated solutions of common table salt, one every three or four hours. The hypodermic injection to be made in the same spot, thus avoiding pain to the patient.

Treatment for the Fourth Day.—Vegetable drugs, combined with ipecac, given in small and repeated doses to act on the liver. The liver must be well purged of bile. Use a good heart remedy to stimulate and prevent hemorrhages, when such is required.

Patient must be allowed to drink plenty of water at all times, as this flushes the secretions, especially the kidneys. Patient must not be allowed to eat anything for the first five days of sickness, only water to be given, not even milk. To eat means sure death.

During convalescence food must be given in liquid form for the first few days, afterwards solid food, at the discretion of the physician.

Physicians must use their own judgment as to dosage of drugs mentioned and when required. Drastic cathartics are especially harmful. Calomel, except at the very commencement of the disease, is harmful. Any form of arsenic must be especially avoided. There is no indication for any use of any form of arsenic during the whole course of the disease, or afterwards. Peroxide of hydrogen has been used in South America with some success on the third day of fever to remove contents of stomach and bowels, but care must be taken that it does not inflate the bowels too much, thereby rupturing them.

I have found sulphate of soda too inert and slow in action to be of any benefit in yellow fever.

Patient must be kept cool, having all the windows open, and under no circumstances must he be bathed, either with hot or cold water, during illness.

The sanitary regulations of the Marine Hospital service regarding mosquitoes must be enforced.

There is no prophylactic against yellow fever, other than such drugs that tend to flush the stomach and bowels, such as thiosulphate of soda.

1435 Polymnia Street.

[Written for the MEDICAL BRIEF.]

Spasmodic Laryngitis.

BY KENT O. FOLTZ, M. D.,

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Spasmodic laryngitis is always an inflammation of the laryngeal and tracheal mucous membrane, with an associated spasmodic contraction of the laryngeal muscles. This causes a cough, difficult respiration, stridor and sometimes dyspnea. The spasm is not dependent upon the amount of inflammatory action. When supraglottic there is often spasm, while if subglottic, a true or membranous croup is the condition, but both forms may exist. A neurosis may cause laryngeal stridulus without inflammatory action.

Etiology.—An inherited tendency is often present, and any state of the system causing a lowered vitality will predispose to this condition. Colds are the most frequent exciting factor. It is not infrequently found as a precursor of children's diseases.

Symptoms.—The attacks may occur at any age from a few months to ten or twelve years old. Usually there is some cough and symptoms of coryza preceding the attack, but often there are no premonitory symptoms. The attack is most frequently between ten and two o'clock at night. After a natural sleep, varying in duration, the child awakes with a loud, rasping, wheezing, asthmatic cough, the

respiration is very labored, and on inspiration there is a peculiar whistling sound. The face is markedly flushed, and there is an anxious and terrified expression. The child will usually cling to the attendant as if in terror. The pulse, on account of increased vascular tension, the result of the impaired respiration, will be rapid and hard. The duration of the attack varies from half an hour to two or three hours. Infrequently there may be two or more attacks the same night, but usually they are repeated on successive nights. As a result of the coughing and forced respiration, there is usually a decidedly inflammatory action following the paroxysm. A hoarse, croupy cough, with an excessive catarrhal secretion, often lasts for several days, and if a decided cold has been contracted, a catarrhal pneumonia may result.

Diagnosis.—Not infrequently this is mistaken for pseudo-membranous croup, but in the latter the disease is insidious, the cough, which is present increasing gradually, and does not abate during the day. In spasmodic laryngitis the paroxysm is sudden and rapidly reaches the climax, and invariably occurs at night. The cough is loud, wheezy, and dry, and change in the voice is simply the result of impaired respiration, and is sudden. There is slight or no inflammatory action of the faucial structures. In true croup, on account of the membrane, the cough is harsh and rough, and increases in severity. The voice is changed, owing to the presence of the membrane, but it is gradual.

Prognosis. — Usually favorable, as rational treatment will generally effect a cure. Fatal results may follow in some cases, so the general condition of the patient must be considered.

Treatment.—The relief of the spasmodic action of the laryngeal muscles and alleviation of laryngeal inflammation are important. Placing the child in a bath, I consider barbarous. The treatment I have found most beneficial was employed by my father in over forty-five years of active practice, a large proportion of his work being among children. The child should be allowed to remain in its crib or bed. No extra clothing should be placed over it. Plenty of fresh air admitted to the room, but the temperature should not be allowed to drop below 60° F. Emesis is seldom if ever required.

The following is given:

℞ Sp. Aconite.....3 to 5 drops.
Sp. Ipecac.....8 to 15 drops.
Aquæ, q. s.

Mix. Teaspoonful every fifteen minutes for an hour, then every half hour or hour.

In the majority of cases, the child will be sleeping quietly before an hour has passed. The medicine can be continued during the waking hours, giving it every two hours, and it will relieve the irritation of the mucous tissues, preventing a recurrence of the attack in many cases. The production of emesis simply takes the strength of the little patient, and renders it more susceptible to subsequent attacks, and often with a fatal termination. During the intervals of the paroxysms, or following a single attack, such hygienic and medicinal measures should be instituted as will lessen the susceptibility of the patient to climatic changes.

Odd Fellows' Building.

[Written for the MEDICAL BRIEF.]

Report of a Case of Subcutaneous Rupture of Femoral Artery.

BY JULES LAZARD, M. D.,

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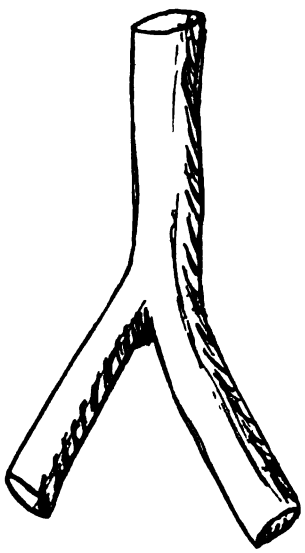
The following case illustrates a condition which seems to be rather rare, and is, therefore, considered of sufficient interest to report:

A young white man, robust, healthy, was admitted to the hospital at 11.15 P. M., having sustained serious injuries in a railroad accident at 10.30 P. M. He complained of great pain in his feet, and thirst, though he had been drinking water constantly on the train the thirst was not relieved. His pulse was weak and skin pale. He was given strychnine and digitalis, and morphine hypodermically.

Hospital examination revealed a compound fracture of all the toes of the right foot excepting the little one a lacerated wound over the outer malleolus; and a large lacerated wound of the left popliteal space, dissecting up the skin for two

inches. This wound bled freely. Under chloroform anesthesia they were thoroughly cleaned and sutured, and the second toe of the right foot amputated; in the meantime a constrictor was applied over the left femur to control bleeding of the left side, which was subsequently sutured. Infusion at this time was thought unnecessary. Nothing abnormal was noticed in the upper part of the left thigh. He was under chloroform for an hour and twenty-five minutes. Strychnine and digitalis were ordered to be given every four hours. He was seen again at four A. M. There was now extreme pallor and sighing respiration, great restlessness and insatiable thirst. Pulse almost imperceptible. The foot of the bed was raised, and warm bot-



tles placed around the patient. At nine A. M. his pulse was imperceptible. The restlessness and thirst increased. His left arm was quickly prepared, and three pints of normal salt solution (saline) 112° F., injected into his venous circulation. His pulse became stronger, and some general improvement followed. A large swelling with much discoloration on the upper surface of the left thigh was noticed for the first time. He gradually sank and died at 11.40 A. M.

Autopsy showed besides the other wounds related above, quite an extravasation of blood in the intermuscular plain and subcutaneous tissue, especially over the sartorious muscle of the left side, the sheath of the femoral muscles was filled with blood as low as the knee, and as high as Poupart's ligament.

Careful dissection for the removal of the femoral artery showed that the vessels had ruptured in the angle of the superficial and deep femoral arteries. (See drawing.)

840 Canal Street.

[Written for the MEDICAL BRIEF.]

A Preliminary Study to Urinary Analysis.

BY W. R. INGE DALTON, M. D.,

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A concise and definite analysis, in order to find the etiologic factors of disease so that remedies may be prescribed intelligently, is now regarded by up-to-date physicians as essential—absolutely necessary—to effect a cure. Previous to a chemical analysis there are certain physical properties which are presented for study. The first characteristic physical property is color. The average distinctive color of a healthy adult's urine is a light amber, rather inclined to a yellowish hue, deriving its color from the pigment deposits of urobilin, entirely separate from those pigments formed by the liver, which last are parts of the biliary excretions. Urobilin is always elaborated from the hematin of the blood—a conceded fact. Where this fluid is of an excessively high color, with a low specific gravity, we may look for a greatly lessened quantity of urea, and right here we may be led astray, jump to an erroneous conclusion, and ascribe the condition to an excess of urea in cases of this kind. Look out for a rheumatic tendency, an inadequate functionizing by the liver, and numerous skin lesions in specimens of this order.

The amount of coloring matter, then, will determine several diagnostic features; when in augmented amount, we know it denotes urobilinuria. The liver is over-

taxed in work; it refuses to perform its physiological function of transforming the degenerative red blood corpuscles, the ptomains, toxins, the free blood pigments and the other poisonous elements of the blood into normal bile fluid, which flows into the duodenum, thence into the intestines, and, through the lacteals and absorbents, into the general circulation, whereby, in consequence of this increased labor, the liver cells become impaired, causing a decrease of physiological metabolism. From this condition of the liver we may note a protean number of skin diseases, chloasma, leucoderma, furunculosis, etc.

As to the light color, it is generally due to an increase in the output of water, demonstrating some disease of the kidney. This kind of urine, by its color, shows it to be of alkaline reaction. When the color assumes a blackish tint, unless caused by carbolic acid, we may infer that we have to deal with cancer of a melanotic variety. When the color is greenish, it proves biliary jaundice (icterus), hence, follow a large number of cutaneous affections. When we note a markedly light color on examination, with high specific gravity, we may confidently expect to find eczema, psoriasis, urticaria, erythema, etc., following glycosuria, or diabetes. On the contrary, a highly colored sample, with low specific gravity, taken with an increased amount of urea, infers urobilinuria, caused by a liver disease. Thus, the color of the number of pigments to a specified sample will certainly determine great knowledge of its pathology. As to the acidity or alkalinity of the sample to be examined, if it is highly acid in reaction, upon the application of heat, the earthy phosphates will not form deposits, and the sample will be clear and transparent! These phosphates are soluble in acids; when the specimen is alkaline, they may be precipitated, even before heat is applied. Specimens may differ from day to day, owing to this change from acidity to alkalinity, and vice versa. If we wish to have a precipitation of the phosphatic deposits, the addition of potass. liquor, or liquor ammoniæ, will show them. When due to the phosphates we have a cloudy urine and a phosphaturia results. Nearly all diseases of the skin, which are caused by this condition, are associated in their etiology with neurosis of some kind. When we add an acid to our specimen after subjecting it to heat, and the transparency is lost, it assumes a cloudy appearance, due to serum-albumen, pus, or blood, and if it is not affected in any degree by the acid addition, it may be, and most likely is, due to micro-organisms or to mucus. They may be readily discriminated on microscopical examination. When we find tube-casts, we may rightly infer them to be due to serum-albumen.

The specific gravity ought to range from 1014 to 1025 or 6. In interstitial nephritis we have a low specific gravity, and if continued, uremia surely follows; if of high specific gravity, diabetes ensues. We must seek the cause of turpidity or cloudiness in urine, to arrive at right conclusions, in order to ascertain by these analyses the physiological significance of the abnormal conditions. When the urine becomes viscid, and of a tenacious consistency, there is sure to be varying amounts of pus, fibrin, or mucus, and if, after some hours, it becomes of a jelly-like character, there is some inflammation of a fibrinous kind in the kidney, ureter or bladder. From the basic phosphate of sodium in the blood we get the normal acid reaction of the urine. Acid salts, by osmosis, permeate animal membranes readily, which explains why an acid urine is secreted from alkaline blood. We must differentiate, however, when it is truly alkaline, and when due to ammonia (caused by a volatile alkali), or to a fixed alkali caused by the phosphates of sodium or potassium. It is quite important to make these distinctions because of the innumerable skin diseases springing from conditions of the blood, when due to a fixed alkali.

It has been my practice, based upon the theory I enunciated at Atlantic City before the American Medical Association five years ago, to effect the cure of all skin diseases by a rigid treatment of the blood, from the stomach contents down, and through the absorbents and lacteals, into the circulating current. I now still more confidently adhere to that theory of

"The Causes of Skin Diseases Due to Hyper-Acidity"—that the chyme, as it reaches the duodenum (transformed into chyle), is so hyper-acid that it prevents physiologic metabolism.

447 Arcade Building.

[Written for the MEDICAL BRIEF.]

Pregnancy Complicated with Inflammatory Disease of the Pelvic Organs.

BY HENRY C. COE, M. D.,
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This division of the subject is such a broad one that I can do little more than touch upon its main features in order to keep my paper within proper limits.

I shall discuss briefly: (1) inflammatory conditions of the uterus; (2) of the adnexa; (3) of the peritoneum and pelvic connective tissue; (4) of the urinary tract; (5) of the rectum, with a few remarks on the important subject of appendicitis complicating pregnancy. As I shall draw entirely upon my personal experience, references to the literature will be omitted, also the discussion of etiology and pathology.

Uterus.—Acute endometritis is certainly a rare complication of pregnancy. It has been described in connection with infectious diseases and the acute eruptive fevers. A streptococcus infection may follow unsuccessful attempts at criminal abortion. I recall one case which terminated fatally at the sixth month, but as the fetus was macerated, I was unable to say whether the condition of the endometrium was primary or secondary. Acute gonorrheal infection of the pregnant uterus is fortunately infrequent, though the subacute or chronic form of inflammation is often met with in hospital practice, and is, in my experience, a cause of premature delivery which is often unrecognized. Its bearing on puerperal endometritis, mixed infection, etc., must not be lost sight of.

Chronic catarrhal endometritis (with accompanying watery discharge, sometimes very profuse) cystic endometritis and diffuse hyperplasia of the decidual endometrium, all deserve mention. I have always regarded them as representing the exacerbation of previous affections of the endometrium under the influence of the increased congestion of pregnancy. That they are important from a clinical standpoint is evident from the frequency with which they lead to premature expulsion of the fetus.

The treatment of acute endometritis (whether septic or gonorrheal) would follow the ordinary rules. An infected pregnant uterus should be emptied without delay, since there is no chance for the fetus, and the safety of the mother demands prompt treatment. Acute cervical gonorrhea requires strong injections —sulphate of zinc, or bichloride, and applications of nitrate of silver within the cervical canal. The interests of the child are to be considered, especially during the latter months of pregnancy. But the best treatment is prophylactic—thorough curettement and cauterization of the uterine cavity as a preparation for a subsequent pregnancy. The good effects of the treatment are shown in the case of patients who have repeatedly miscarried previously. The lighting up of a latent gonorrhea under the influence of impregnation I have noted in several instances.

Diseases of the tubes and ovaries complicating pregnancy I would classify under two heads—acute inflammation, and the exacerbation of previous trouble under the influence of pregnancy. It is not easy to decide under which category a given case belongs, especially if a clear history of former disease of the adnexa can not be obtained. That acute oöphoritis of a severe type may complicate pregnancy has been shown in a previous paper of mine. In one case reported the patient, after receiving a blow in the left groin, developed local pain and tenderness with fever ranging from 103° to 107° F., for six weeks before I saw her, when she was at the fifth month of pregnancy. An abscess in the left side (doubtless ovarian) emptied into the bladder, and after a long convalescence she went on to full term and had a healthy child. The patient has since had another child and is now quite well.

The diagnosis in this case was based on the history of traumatism, the localization and severity of the pain and the virulence of the inflammatory process, which I have found to be characteristic of

acute ovarian abscess. The prognosis in this, as in similar cases, was grave. That the patient did not miscarry and succumb to the prolonged strain upon her vital powers was due to her excellent condition.

The question of operative intervention must always arise, and if the abscess can be clearly located the surgeon's duty is clear. The lateral incision is naturally preferable, as it may be made without interrupting pregnancy. If a celiotomy is done, it would seem wise to make the incision along the outer border of the rectus rather than in the median line. Certainly a median section after the fifth month of pregnancy would be attended with serious risks of infection (even if the abscess has not ruptured), and a miscarriage would doubtless occur and still further complicate the situation.

Regarding the vaginal incision of an ovarian abscess, I admit that the risks of infecting the uterine cavity is great, but from my experience in a few cases I believe that with care they can be avoided. With pus clearly pointing in the posterior vaginal fornix the patient stands a better chance if it is evacuated per vaginam, the cavity thoroughly disinfected and a T-tube is inserted, than if the abscess is allowed to rupture spontaneously.

Peculiar interest is attached to the question of the influence of pregnancy upon pre-existing disease of the adnexa, especially when viewed from the standpoint of modern conservatism. The prognosis is naturally uncertain. How often do we regard conception in some of our old ovarian or tubal cases as a veritable calamity, yet pregnancy is attended with minor disturbances and labor and the puerperium run a physiological course! The way in which exudates sometimes soften and disappear, adhesions are stretched and imprisoned adnexa rise up out of the pelvis with the growing uterus, upsets all our theories and prognostications. I recall one instance in which a multipara, married several years, had a narrow escape from hysterectomy. She bore two children in the most normal way, her adnexa having been supposed to be hopelessly diseased. But such exceptions do not justify too great hopefulness. Even the simplest varieties of cystic or hyperlastic oöphoritis, with limited adhesions, may be attended with more or less constant pain, with a distinct exacerbation of the trouble after delivery, or abortion or premature delivery may result from the imprisonment of the uterus. The pain alone, unless constant and unbearable and attended with considerable enlargement of the uterus, I would not regard as an indication for laparotomy, though I can conceive that there might be cases in which it would be proper to empty the uterus. That a cystic ovary may become a true ovarian cyst under the influence of the increased pelvic congestion I have noted in several instances, in which celiotomy was performed without disturbing the pregnancy. I would not hesitate to open the abdomen or to break up periuterine adhesions if the indications were clear.

Tubercular disease of the adnexa is distinctly aggravated. In one instance the pregnancy and labor were normal, but the patient developed acute tubercular peritonitis and died three weeks after delivery. In subacute inflammatory conditions the outlook is more serious. Here the influence of pregnancy is decidedly bad. The probability of a fresh infection from the side of the intestine to which diseased ovaries and tubes are adherent should always be borne in mind, hence the importance of careful attention to the bowels in these cases. This point is still more important in connection with the next inflammatory condition which may complicate pregnancy.

That acute appendicitis may develop during pregnancy is unquestionable, still I believe that the recurrent cases are far more frequent. There is little doubt that the chronic constipation so common in women at this time is a potent factor. I am sure that I have aborted several attacks by free purgation, by irrigation of the bowel and the use of an icebag. One of my patients had a mild attack with three pregnancies, and eventually had an internal operation. Another went through her pregnancy, terminating in a difficult instrumental delivery and had an acute attack and a successful operation when her baby was six months old. In a third case (first attack) I was prepared to operate upon a primipara in the fifth month, but the acute symptoms subsided and she

miscarried a few days later, her physician informing me that she has since been quite well.

I have had under observation a primipara four months pregnant, who was operated upon successfully, a suppurating appendix being removed without disturbing the pregnancy. Some years ago I assisted in a similar case in a woman at the seventh month. The uterus formed the inner wall of a large abscess, which was incised and drained, the woman miscarrying a few days later, but making a good recovery. The prognosis as regards the subsequent course of pregnancy and labor is naturally somewhat uncertain, but judging from the results of celiotomy I feel considerable confidence in Nature's power to stretch adhesions and melt away exudates.

As regards the treatment I would say: Temporize as far as is safe in view of the risk of interrupting pregnancy, but when the indications are clear operate without delay, choosing the incision parallel with the outer edge of the rectus, and drain as in any other case. The after treatment requires more than ordinary care, and it will usually be necessary during the first forty-eight hours to depart from the common rule of withholding opium.

Inflammations of the urinary tract presents many phases. Doubtless they are mostly of gonorrheal origin, though some are septic and a few traumatic. I recall one fatal case of pyelitis, and another of inflammation of the ureter so severe that I was inclined to empty the uterus, when labor came on naturally and the patient was relieved as soon as the pressure was removed.

Rectal troubles—proctitis, ulcers, fissures, and inflamed hemorrhoids—frequently assume importance during pregnancy, when they are apt to be greatly aggravated, but their treatment does not require special consideration.

I would like to call attention to certain obscure cases of high fever during pregnancy, attended with local tenderness, in which the diagnosis is difficult. Some of these turn out to be cases of grippe, malaria, typhoid, intestinal trouble, late pelvic thrombo-phlebitis, etc., but in many the cause of the symptoms is not discovered.

[Written for the MEDICAL BRIEF.]

Fatty Degeneration of the Heart.

BY W. E. PUTNAM, M. D.,
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Bennington, Vermont.

Is there any sign, or group, or succession of symptoms, by means of which we can determine definitely the presence of fatty degeneration of the heart? I will answer that question with one word—no.

The disease is one in which a true diagnosis is very difficult, many times impossible. When fatty degeneration exists, and depends upon a local cause limited to the heart, it is always associated with other changes of an earlier date, and its proper symptoms, if it has any, are they mixed up and confounded with those of an earlier structural disease. When it proceeds from some general cause, we may be more sure of our diagnosis.

In this disease, the pulse has been observed to be weak, or irregular, or very slow. One, two, or all these symptoms may be present, but, of course, this group may be observed in other lesions, so we have nothing definite here.

There are no peculiar ausculatory signs to the pulsations of a fatty heart. The same may be said of shortness of breath, syncope, which are common, of coma, and of precordial pain, which are less common.

It is always well in a suspected case to take the age into consideration, as the fatty change, when due to general decay, is prone to begin between the ages of sixty and seventy; some observers say about the sixty-third year.

In twenty-one instances out of sixty-eight, syncope was followed by death, and of the whole number (eighty-three) sixty-eight died suddenly. Death usually followed some unusual exertion or excitement, such as climbing hills, stairs, running for train or car, or to escape shower, anger, fright, etc.

The principal character which these cases seem to present is that the victims are fit enough for all the ordinary events of a quiet and peaceful life, but are wholly unable to stand any severe extra strain, mental or physical, especially accident, operation, or fright.

I stated at the beginning of this paper that the symptoms of fatty degeneration of the heart, are purely presumptive, or words to that effect, but if there are evidences of feebleness of the heart, yet no symptoms of valvular lesion, if the patient has attained the age of sixty, has a tendency to grow more fleshy, with pale and sickly complexion accompanied by a marked arcus senilis, then you may reasonably conjecture that the heart is yielding. The presence of the arcus senilis, alone, is entirely insufficient evidence upon which to base a diagnosis of the fatal disease mentioned above. Perfectly healthy people apparently, and in reality probably, some of them quite young, carry a distinct arcus.

In my own case, I have had an indistinct arcus since I was a boy, and yet, so far as I know, have a perfectly healthy heart. I am still, however, on the sunny side of fifty, and although beyond the Oslerian age of my best endeavor, am still a long way this side of fatty degeneration, as far as age is concerned, at any rate.

Death is usually preceded by rupture of the septum, followed by sharp pain at the time of its occurrence. The scene closes usually in a few minutes after the tissues give way, although some have lived one, two, or even three days.

The disease of which we have been writing is incurable, but much may be done in the way of medicine, and especially good advice, to add to the patient's comfort and safety.

Fairly generous diet should be allowed, very moderate exercise, avoiding all excitement, cultivating peace of mind and quietude. These are cardinal principles. Inculcate temperate habits. Give diffusible stimulants freely when syncope threatens, such as spirits etheris nitrosi, spirits ammon. arom., or hypodermics of spirits camph. ether, or spiritus frumenti. Strychnia sulph., one-thirtieth to one-fiftieth grain, three or four times a day, is often of great benefit, also caffeine, spartein sulph., and tr. nux vomica.

Digitalis ought not to be given. An exception is sometimes made in regard to this drug early in the disease.

Note.—The eighty-three cases referred to in this paper were in the service of Sir Richard Quain, more than half of them being over sixty.

[Written for the MEDICAL BRIEF.]

Practical Bandaging of the Scrotum and Perineum.

BY FREDERIC GRIFFITH,

Surgeon, Fellow of the Academy,
New York City.

There are two portions of the body which not only the general practitioner, but the surgeon as well, oftentimes finds difficulty in bandaging, namely, the perineum in both sexes and the scrotum in the male.

Perineal Binder.—While nearly everyone is familiar with the commonly described T-bandage for the support of dressings in the perineum it is a special work of a sewing woman to produce this bandage, and when away from the hospital

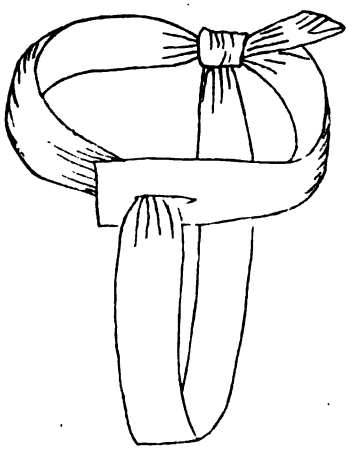

Fig. 1. Improvised T-bandage.

precincts may become impossible to procure one in emergency. An improvised T-bandage may be made from a yard and three-quarters length of a four or six-inch roller bandage.

The bandage is applied by passing one end through a longitudinal cut near the other extremity after passing around the patient's waist. Drawing the slip taut it is placed in position at the middle of the back. The tail is passed down and drawn up first between the patient's legs, the dressing to be supported having been placed in the perineum, and is completed by fastening to the waistband in front.

In male patients two tails are made by tearing up the middle of the free end of

the bandage to a point opposite the base of the scrotum. It will oftentimes be of advantage to confine the scrotum in the dressing, which may be accomplished by tearing up simply to the peno-scrotal junction. The penis being free urination is unhampered. This bandage is useful in bed-ridden cases, where a simple dressing is required, which must be frequently changed.

The best perineal bandage or binder for use in bed cases, as after rectal operations, where secondary hemorrhage may occur if firm support be not accorded, and in all walking and office cases where the patient's comfort as well as insurance against derangement must be made, consists of a binder simply prepared as follows: A four-foot length by eight to

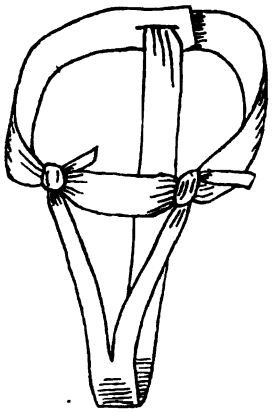

Fig. 2. T-bandage split in front for use in male patients.

twelve inches in width of bandage muslin is provided with a waistband made from a four-inch width roller bandage of sufficient length to pass around the patient's waist. The band is fastened in front or at the side with one or two safety pins, or it may be tied, the perineal cloth being suspended at the back. Finish the dressing by bringing the tail forward beneath patient's thighs (two tails are made when used for males), passing up and over the waistband in front, where it is drawn snug, smoothed and pinned.

Suspensory Bandages.—So positively inadequate are the ordinary forms of suspensory bandage sold in the shops that I frequently tell my gonorrhea patients that they might just as well slit their trousers pockets and use them as suspensory bandages as to employ any of the common varieties of jock straps or supporters. The primal requisite of a suspensory bandage is does it "lift" the scrotum? A new snugly-fitted suspensory

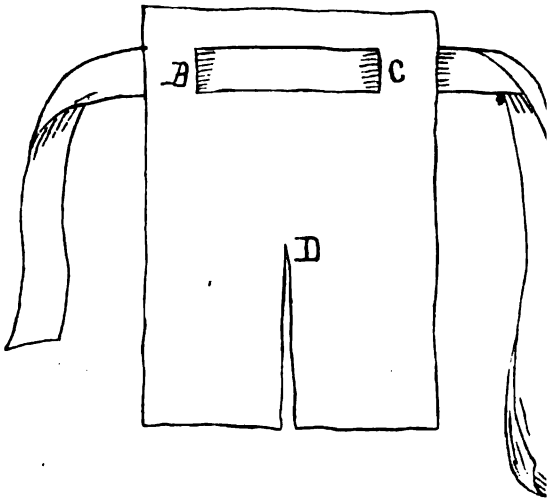

Fig. 3. Perineal binder fitted with a waist band by passing the end of a four-inch bandage through longitudinal apertures (B C). Two tails are made when used for male patients (D).

may seem to be of service in a given case of epididymitis, but the virtue will be found to lie in the compression afforded and not from any suspension of the diseased organ. Pressure of the scrotum against the perineum is not suspension, as a study of the various forms—almost without exception—of supporters in the market, after being placed carefully in

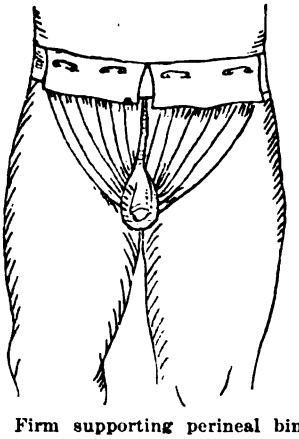

Fig. 4. Firm supporting perineal binder in position.

position upon the patient's body, will make clear. A simple yet adequate suspensory bandage suitable for any case, operative or medical, where true suspension of the

testicles is desired with or without compression may be readily made. From a four-inch width roller bandage cut off a twenty-four to twenty-eight-inch length.

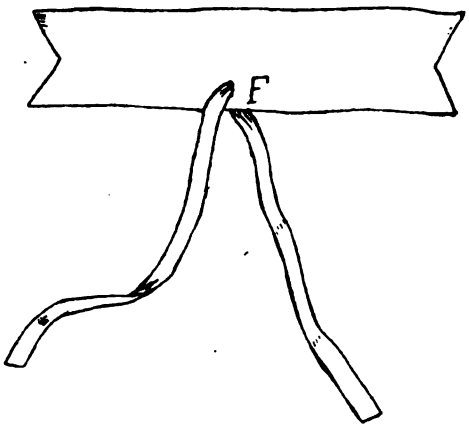

Fig. 5. Simple but firm supporting suspensory bandage.

Double it and near one edge of the fold, cut a small transverse opening. Tear a one-inch bandage and thirty-six to forty inches long down the middle after clipping the end to start it. Pass the end of one of these torn strips through the aperture in the broad bandage and draw it through to the middle of its length. To prevent slipping it may be tied in a single knot at (f, Fig. 5).

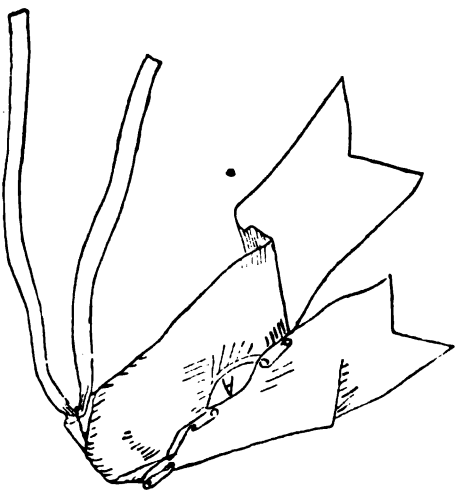

Fig. 6. Improvised suspensory formed by folding and held by means of safety pins. Note the aperture for the penis at (A).

By folding and fastening with three safety pins form a pouch, leaving space for an opening at (a, Fig. 6), through which the penis is to be passed. Apply the bandage over the scrotal application or the dressing, which may have been used by pinning the two tails of the pouch to a waistband (use the other narrow strip left

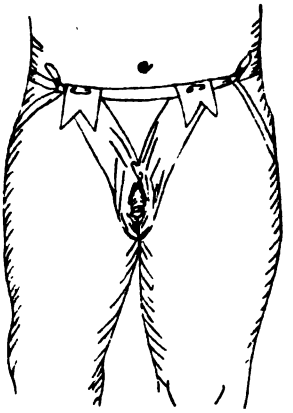

Fig. 7. Improvised suspensory bandage in position.

after tearing through the middle of the inch bandage) at a proper height after passing the penis through the opening provided and elevating the scrotum and dressings to the desired height. Pass the two tails at the bottom of the pouch backward between the thighs and tie to the waistband, drawing them up upon either side in the crease of the buttocks.

To modify any of the ordinary-shaped bandages to make them of more practical value for the surgeon's use it is only necessary to apply the scrotum straps

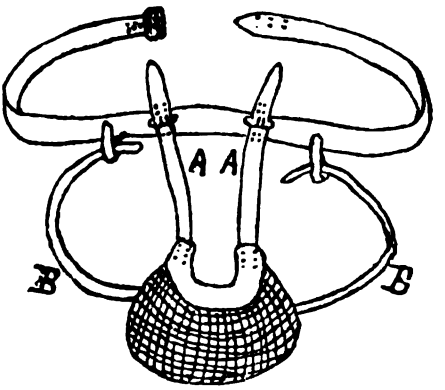

Fig. 8. Improved suspensory bandage with adjustable scrotum straps (A A), thigh tapes (B B).

(aa, Fig. 8), adjusting them with buckles and the thigh straps (bb) when these have not been provided.

49 East Sixty-Fourth Street.

[Written for the MEDICAL BRIEF.]

"Cimicifuga"

BY PITTS EDWIN HOWES, M. D.,

Associate Editor of "The Eclectic Review." Boston, Mass.

Cimicifuga racemosa—or macrotys—is among the oldest of the valuable remedies of the eclectic school. The time spent upon studying the curative action of this plant will be amply repaid. Its range of action is wide-reaching. Those who have prescribed it the most frequently are the most persistent in sounding its praise.

Its sphere of action is largely upon the brain and spinal cord, hence, it should be remembered as a cerebro-spinal remedy. Without doubt the effect produced by this remedy upon the muscular system is not direct, but is due to a reflex action from the brain. It should be looked upon as a depressing irritant in large doses. Indirectly, the vegetative system receives some benefit from its administration. It is a potent remedy in all diseases of the mental system when melancholy is prominent among the symptoms, especially when accompanied by sleeplessness. This latter symptom is one of the keynotes for its use in nervous affections, and should always be remembered. For the removal of such conditions it should be prescribed in small doses. Excessive doses will produce a very strong effect upon the nerves of sensation, and develop all the symptoms of neuralgic rheumatism. The pains are aching, pressing and remitting. They are attended with great restlessness and a weak, exhaustive feeling.

It is one of the most remarkable remedies in all diseases of the cerebro-spinal system. This is especially true when the motor tract is excited, and yet, notwithstanding, there is manifest an atony in the muscular and nervous systems. Hence, this gives us a clue to its wonderful efficacy in some forms of chorea. Cimicifuga is indicated when this disease is produced by irritation of the spinal cord, uterine ailments, or purely psychical causes.

The movements abate or are absent during sleep. They are increased by the emotions, at the menstrual period, or as a result of suppressed menstruation. They are often attended by depression of spirits and wakefulness.

Cimicifuga occupies a large place in the treatment of muscular affections. By preference it seems to act upon the belly of the muscle, and is especially indicated when the trouble has appeared suddenly. The form of rheumatic fever, for which it is curative, is characterized by three prominent symptoms, namely, suddenness, the severity of its manifestations, and its location in the large muscle.

In cases of chronic rheumatism, when the pain is situated in the large muscles and the history of the attack elicits the fact that the onset of the disease was markedly quick and severe, cimicifuga should be given with great confidence in its curative power.

Night sweats, which are due to the degeneration of the nervous supply to the cuticle, will be arrested by the administration of this remedy.

There are conditions of the abdominal structures in which cimicifuga will be used with advantage, namely, rheumatism of the muscular tissues, also the neuralgic pain—frequently taken for peritonitis—which occurs after confinement.

Cimicifuga finds, perhaps, its most important place in many of the ailments peculiar to women.

In amenorrhea—in young girls—from deficient nervous energy in the ovaries, and when the abnormal nervous influence is directed to other organs, giving rise to chorea, hysteria, nervous headaches, etc., etc., the cimicifuga will restore the functions of the reproductive organs to a normal state. Should there be, at the same time, with the above conditions, a chlorotic state, helonias should be prescribed in conjunction.

In retarded menstruation, when, instead of the ordinary flow, there appears a dull, heavy headache, melancholy, palpitation of the heart and other reflex symptoms, this agent will produce a normal tone to the system and cause a regular return of the menses.

In suppression of the menses from a cold, mental emotions, a febrile condition with rheumatic pains in the limbs, an

intense headache with uterine cramps, this remedy will be curative.

Many cases of dysmenorrhea are also relieved by cimicifuga, when they are accompanied by the rheumatic or neuralgic symptoms before described.

As a parturifacient cimicifuga was in general use among the Indians at the early settlement of this country. Many writers have testified to its efficacy in facilitating parturition. It has been stated that cimicifuga exerts a specific influence upon the uterine tissue. That these contractions last longer than those produced by ergot, are followed by less torpor and a greater susceptibility and capacity for action in the uterus than before its employment. Its action, also, is not attended by that deleterious and stupefying influence upon the fetus which often follows the administration of ergot.

After delivery this remedy has been successfully used for the purpose of inducing firm uterine contractions, expelling the placenta and checking *post-partum* hemorrhage. After-pains will be checked by its administration, especially when the patient is inclined to be despondent and is wakeful.

Ovarian neuralgia will be cured by cimcifuga when the ovarian pains are reflected, or change their location to other portions of the body, as the leg of the same side, the region under the breast, or extending up the side to the shoulder.

In puerperal mania, where melancholy and sleeplessness are prominent symptoms, the agent under consideration should be given with the greatest confidence.

In the promotion of easy labors this remedy holds an important position. Given for a few weeks before the expected confinement, it will influence that occurrence in a marked degree. Many times by means of its use the woman is enabled to do without the aid of the anesthetic. Those who have not used it in this manner will be much gratified by the results produced.

It will also be found useful in many nasal and throat affections, especially if these troubles have been preceded by rheumatic symptoms.

Many times the most brilliant results are obtained in those persons who are overworked—completely tired out.

It is best adapted to those pains—rheumatic or neuralgic, which occur below the waist line. When above that part of the body bryonia will produce better results.

Frequently combining gelsemium with the cimicifuga, especially if there is much irritation, will yield a more lasting effect and the cure will be more rapid.

[Written for the MEDICAL BRIEF.]

Arsenization.

BY REGINALD B. LEACH, M. D.,
St. Paul, Minn.

On the 29th of March, 1905, I was requested to and delivered, in St. Paul, Minnesota, an address upon the subject of tuberculosis. On the 2d of April, 1905, *The St. Paul Pioneer Press* did me the honor to reproduce said address, together with eight pictures and two charts. The subject-matter of said address, together with the pictures, occupied fourteen columns of said paper, and was accompanied by an editorial and followed on April 3d, 1905, with a touching cartoon.

Among those to whom copies of this address were sent was a Mr. E. L. Prescott of New Orleans, who, being personally interested in the subject, called a member of his family from Arizona and sent her to me for such professional service as I might judge expedient. Through this party I had the pleasure of several times corresponding with Mr. Prescott at New Orleans, and, upon one occasion (July 31st, 1905,), believing that I might help protect him against yellow fever, through arsenization prophylaxis, I addressed him a special communication upon the subject, inclosed the following prescription, and gave him permission to give same to his friends or acquaintances:

"*How Arsenization Is Performed.*—Take a tablet, granule or powder, containing one one-hundredth grain each of arsenious acid, three times daily for the first week, twice daily for the second week, and once daily thereafter until the remainder of one hundred tablets, granules or powders are taken, or until the epidemic closes by virtue of sanitary and

hygienic precautions or weather conditions."

This prescription is from actual, practical experience of Dr. Rego Cezar and hundreds of his colleagues of Brazil during the yellow fever epidemics of Rio, Para and Campanias, Brazil, in '92, '96 and '97.

Mr. Prescott, believing that what was good for himself and friends should be made known to all, published my letter to him in the *Times-Democrat*, of New Orleans, August 3d, 1905. The prescription seemed to meet with almost universal approval and I was notified that before noon of that same day all of the arsenious acid tablets at that time in that city had been purchased and were being taken by the public.

Mr. Prescott's office, in the Hennen Building, at once became the Mecca of the populace, who desired more enlightenment upon the subject. He was asked whether to take the remedy before or after meals, what dose was best for children, etc., and if it were not possible for him to induce me to come to New Orleans and there make practical test demonstrations of what they called "Dr. Leach's Arsenization Preventive of Yellow Fever," as first alleged, theoretically, by me in the U. S. Senate, June 4th, 1898, and first practically, though negatively, tested in Brazil by Dr. Rego Cezar in 1876.

Having for fifteen years been before my colleagues of the medical profession, trying to induce them to investigate my allegations of the protective properties of arsenization, I naturally grasped this opportunity to visit a plague-ridden city, believing that, if ever, I should now have an opportunity to "make good" or fail.

August 6th, Mr. A. W. Blakely, proprietor of the New St. Charles Hotel, wired me: "Will arrange for transportation and guarantee hotel expenses while here, if you care to come to New Orleans." August 7th, I replied as follows: "Your invitation appreciated. Only awaiting Prescott's notification before accepting." August 8th, Mr. Prescott wired me: "Matter of expense all arranged. Come at once. Wire just when you leave." August 10th, Mr. Prescott further wired me: "Bring medical credentials addressed to Orleans Parish Medical Society." To this I replied: "Will bring Dartmouth diploma, Minnesota registration and Medical Society credentials, though their utility seems superfluous if I 'make good,' and useless if I don't."

Thursday evening, August 10th, I left for New Orleans and arrived at said city at 9:15 A. M., on the 12th inst., to find myself surrounded by friends, who began bestowing favors which I can never forget nor be able to repay.

Within a few minutes of my arrival, the Western Union Telegraph Co. sent me their compliments and the freedom of their wires in communicating with my little family at St. Paul. The proprietor of the St. Charles Hotel notified me that the hotel was mine, and that if I wanted anything not in sight and went without it, it was my own fault. Hardy & Ayer, liverymen, sent me word that any carriage in their barn was mine for the asking, gratis, and I found my money worthless during my entire stay in that city, excepting in tipping bell-boys and waiters. The courtesies of all clubs and exchanges were extended me and all time limits wiped out; and physicians of all schools of medicine (excepting those of the Marine Hospital service and what was known as "The Bunch" in the Orleans Parish Medical Society) called upon me and offered their best wishes and professional assistance in making the practical demonstrations of immunity for which I went to their city.

I was welcomed to the State by a letter from Governor Blanchard, who, under date of August 16th, said: "I have yours of the 14th inst., enclosing a letter from the Hon. John A. Johnson, Governor of Minnesota, introducing you as a physician of high standing, etc. I am glad to have this letter from you and also the one from Governor Johnson. We welcome you to Louisiana, and are glad that you have come for the purpose of testing the virtues of arsenization as a preventive against attacks of yellow fever. I will be glad to extend to you, both personally and officially, every courtesy possible, and all the assistance in my power, to aid you

in making practical tests of the aforesaid theory."

"The Orleans Parish Medical Society" met in regular session on the evening of the day of my arrival, August 12th. By messenger I presented said society with my credentials from my home society, together with my diploma from Dartsmouth Medical College, my endorsement from Belleview Hospital Medical College and my Minnesota registration, accompanied by a personal letter, stating that I had not come to their city for the purpose of practicing medicine, but solely for the purpose of making practical test demonstrations of immunity, through arsenization, against the bite of the segomyia fasciata: the pest-bearing mosquito just then augmenting the epidemic of fever in that city.

The reply from said society came to me before twelve P. M., that same day, in the form of a set of resolutions, which had been passed, as the secretary stated, that same evening unanimously. These resolutions were couched in language so contemptibly discourteous as to merit and receive only oblivion. They have not to this day been given publicity. Had said society decided to rid itself of an outsider and a "heretic," it would seem that the surest and quickest way would have been to have appointed the committee requested and that said committee at once produce the infected stegomyia and place same upon said "heretic," that he be for once and all destroyed.

So far as I am aware, a similar certified, positive, practical test demonstration has thus far never been made of a similar prophylactic; though thousands of negative tests of arsenization have been made in Brazil since 1876, and are now being made by the hundreds of thousands, with arsenization versus yellow fever, in our Southern States.

Before I had been two days in New Orleans, I received calls from two ladies and six gentlemen, all laymen (one from Alabama), alleging their non-immunity by virtue of previous attack of yellow fever; that they had confidence in arsenization and that they desired to offer themselves to undergo, with me, the proposed demonstration of immunity through arsenization prophylaxis.

Having paid no attention to the rebuff of the Parish Medical Society, its members began to tell of what they had done. They offered as one excuse for their position the excuse that, in supervising my demonstrations they would be lending countenance to a suicide. That if I came through it all right, it would prove nothing; and that if I made the same tests upon my volunteers in their presence, they would be countenancing murders. That all volunteers would die and that, thereby, the death rate of New Orleans would be augmented. They knew that there was nothing in arsenization; so "what's the use?"

Their solicitude for my welfare was so great that every day some new excuse emanated from their ranks. How the public judged these excuses is best told in the following from the "funny-man" of the *Times-Democrat:*

"DR. LEACH."

"It wouldn't do for Dr. Leach to arsenate the town;
The thing might be effective and the doctor bills go down.
No self-respecting doctor could afford to be unjust;
But then, you know, this Dr. Leach might represent the trust.
Another thing to think about in dealing with this Nemesis,
Is that we can't afford for Leach to die upon the premises."

Among other excuses offered against my tests was one to the effect that "Arsenization has already been tested, along with the mosquito theory, and been found wanting."

If this were true, they failed, when asked by me to do so, to produce evidence to that effect; and the fact that Gen. Wyman, in the following letter to Mr. Blakely, of the St. Charles Hotel, omitted to mention those alleged "tests," is somewhat conclusive of negation of their assertions:

"WASHINGTON, D. C., Aug. 19, 1905.

"*Dear Mr. Blakely.*—About Dr. Leach: He tried very hard to have the service take up his theory and make the necessary expenditures to investigate it. It was turned down by the scientists of the Bureau several years ago. He is certainly enthusiastic and unselfish, but I think he is on the wrong track."

If the theory of arsenization prophylaxis had been proved "N. G.," is it likely

that the Surgeon-General of our Marine Hospital Service would have failed to mention same in his letter to the man who was paying my hotel expenses; a personal friend of Dr. Wyman? Hardly.

All this becoming public property, the people were up in arms. Thousands who had not, up to this time, sided with me, at once did so. "The under dog," you know. The fight was on.

The mayor of the city and other distinguished citizens had, before I left St. Paul, petitioned this medical society to supervise my proposed test demonstrations, providing I would agree to go to that city. The governor had welcomed me to their commonwealth, the mayor and his counsel had called in person, as had hundreds of the most representative citizens, and I had already been the guest of honor at the Pickwick, the Chess Club and the Sugar Exchange, and had invitations to other clubs and exchanges.

The newspapers, up to this time, had made it their business to herald my every act and word. "Letters from the Public" began to make their appearance in their columns. One, signed "Fair Play," will do as a sample for all and show the spirit of the people who were and are still taking arsenious acid:

"*Editor New Orleans Item.*—The treatment accorded Dr. Leach in this community was probably conformable to the ethics of the medical profession, but is widely at variance with the laws of hospitality and manly appreciation.

"He came into our midst at our solicitation, bringing with him the highest credentials. He asked for no remuneration, but merely the privilege, under medical supervision, of subjecting himself and other arsenicized persons to the mosquito test. What were the doctors afraid of? Was it the fear of his acquired immunity or the apprehension of a theory to be by him demonstrated to be a fact?

"There are produced the highest testimonials in support of the mosquito theory. He brings certificates equally convincing of arsenization. Why do they unhesitatingly accept the evidence of Cuba and Mexico and reject, without trial, the evidence from Brazil? There is one fact most clear, and that is, that if we do escape a more serious outbreak of fever, that some thousands of the population will attribute their immunity to arsenization, and not to those who primarily are thought to be responsible for its introduction. I am no arsenic convert, but do believe that no one has a right to condemn that which he refuses to investigate."

A "Mass Meeting" was called in the Palm Garden of the St. Charles Hotel on the evening of August 17, at which time I presented the people the theory of arsenization, amplified from the following, which appeared in *The Wisconsin Medical Recorder* in 1900, viz.:

"Arsenization is the act or art of arsenicizing; the introduction of arsenious acid into the human frame with the view of protecting it against Asiatic cholera or yellow fever (and, presumably, against bubonic plague), or rendering those diseases less formidable."

Arsenization, or the immunizing of the human against the diseases referred to, is accomplished either by inoculation from an ivory point or by the hypodermic injection or the ingestion of arsenious acid; and from experience it has been learned that a dose, ranging from one one-hundred and fifteenth to one one-hundredth of a grain of arsenious acid, repeated as above described, sufficiently immunizes any one versus the diseases mentioned.

This is the experience of Drs. J. P. da Rego Cezar and Ismael da Rocha and at least fifty others in Brazil against yellow fever; and of Drs. P. C. Majumdar and U. C. Bagchi, of Calcutta and Bombay, India, against Asiatic cholera.

The probable prophylaxis of bubonic plague by arsenization is analogically reasoned because of the intense (if I may be allowed the term) analogy, or likeness, or similarity, between the stage of collapse in this disease to that stage in Asiatic cholera and in yellow fever. At this "Mass Meeting" a committee of seventeen of the most representative citizens of New Orleans was formed, with Mr. Sidney Story as chairman and Mr. F. M. Welch as secretary. A resolution was unanimously adopted to again petition "The Orleans Parish Medical Society" to supervise the test demonstrations for

which I had gone to New Orleans. It was decided by the committee that as soon as this set of resolutions was presented the secretary of said society, that the action of said "Mass Meeting," together with a copy of said resolution and petition, should be made public through the daily papers.

Within an hour of the meeting, the petition to the medical society was delivered to its secretary, and the sub-committee on publication had visited the offices of the various morning dailies and had requested that the proceedings of said "Mass Meeting" be given publicity.

But they were too late. A committee from the local medical society, together with Dr. White of the Marine Hospital Service, had already visited those same offices and had obtained their promise that nothing more from me or from any citizen favoring arsenization would be made public; and in the afternoon of the same day, *The States*, the afternoon member of the newspaper combine, closed its columns to any person interested in anything but the killing of mosquitoes.

The public at once "sat up and began to take notice." They wanted to know why an alleged preventive against yellow fever, with almost universal adoption, even to its being prescribed surreptitiously by their local doctors, was not permitted by "the powers that be" a practical, positive test demonstration against that disease which was destroying their business and the lives of many loved ones.

A committee of local doctors called upon His Honor, the Mayor, and demanded that he request me to leave their city. This, of course, His Honor refused to do. He is not only too much of a gentleman to have obeyed such a request, but he had headed the petition requesting me to go to New Orleans.

Letters began to pour in to me from all over the State; in fact, from all over the South, from as far east as Baltimore and as far west as Dallas, Texas, requesting me to "stay and fight it out if it takes all summer." This, of course, I was ready and willing to do, and did, so long as my committee found it expedient and possible.

Another "Mass Meeting" was decided upon, and was called for the evening of the following Wednesday; and paid advertisements for same were inserted in all daily papers in the city. This meeting was for the purpose of reporting back to the people the acts of their committee appointed at the former meeting, and for the purpose of protesting against the action of the local medics and U. S. M. H. S. doctors in "muzzling" the press, and in thus far making impossible the proposed test demonstrations of immunity under arsenization.

From the previous Thursday morning up to the morning issue of this day, Wednesday, August 23d, 1905, *The Times-Democrat*, *The Picayune* and *The States* had made no mention of myself or efforts; but on this Wednesday morning, *The Times-Democrat* gave me a column and a half of the most beautiful "editorial roast" such as no one, to my knowledge, not in politics or a mountebank of the first water, had ever before received.

They quoted Gen. Sternberg, former Surgeon-General U. S. Army, as their authority for the fact that I had been so laudibly ambitious to help humanity that I had four different times been impertinent enough (and successful enough) to importune and foist upon the credulous U. S. Senate my nostrum which can be, and was in New Orleans, purchased at any retail drug store in the world, almost, for "two bits."

They even went so far as to quote Gen. Sternberg's reply to the Committee of the Senate on Public Health and National Quarantine, to the effect that, in his opinion, I did not possess the requisite scientific attainments for membership on a commission I had requested the President to appoint for the purpose of investigating into the cause and prevention of Asiatic cholera, yellow fever and bubonic plague; and they accepted Gen. Sternberg's "think," shell and all, *quid pro quo*, for the truth and a fact. And yet Gen. Sternberg is the same one who denied that the icteroides bacillus of Sanarelli was the specific morbid germ of yellow fever; that his, the bacillus X, was the only specific morbid germ of this disease, while all now know that both are

wrong, that what they called the specific morbid germ of yellow fever is not the cause of yellow fever, but the specific morbid germ of hog cholera, and that all now admit that "We do not know the cause of yellow fever." (See Bulletin No. 14, U. S. M. H. Service.)

Gen. Sternberg's opinion of the writer is public property in what is known as Senate Report, No. 1215, May 7th, 1900.

In this same issue of the *Times Democrat* is reproduced what they term "Dr. Leach's Record." This record displays, at the worst, a laudable ambition to help our fellows and, maybe, to "be somebody," and for this the writer is held up as "Thou Shalt Not."

On page eight of Senate Document, No. 111, Second Session of the Fifty-fifth Congress, February 2d, 1898, you will find what others know of "Dr. Leach's Record." This was not published in New Orleans, but can be had at any time by any person sufficiently interested to ask for same of the Secretary of the U. S. Senate, Washington, D. C.

At this last "Mass Meeting," Wednesday, August 23d, I took occasion to reply to the said editorial, as well as to a similar one which appeared on the same day in *The Picayune*. My reply can be seen in the columns of *The New Orleans Item* of August 24th, 1905.

In 1896, when appealing to my confreres through the medical journals to assist me in properly presenting and practically proving arsenization against Asiatic cholera, one would-be facetious colleague of Philadelphia made the statement that "There is lots of cholera in Egypt; let the Doctor really prove the assertion he makes." At that time I attempted to prove same in Egypt, but before I could leave America was notified by Rogers Pasha, Health Officer of Egypt, that their cholera epidemic had closed. I have never since had the chance to make said practical test demonstrations, though I certainly expect to do so in Europe unless the present epidemic there closes before I can make necessary arrangements for the care of my family during my absence.

The action of my Philadelphia confrere, and the action of the local medics of New Orleans (in their effort to have their mayor ask me to return to Minnesota and here make the tests they refused me the privilege of making there), their action reminds me of a similar position in which our British ancestors found themselves upon one occasion, and which in history is known as the "Groans of the Britons," in which they are said to have exclaimed: "The barbarians, on the one hand, drive us into the sea; the sea, on the other hand, throws us back upon the barbarians; and we have only the hard choice left us: to perish by the sword or by the waves."

Previous to the last "Mass Meeting," the Marine Hospital authorities had notified my committee that if, at this meeting, the proposed call for volunteer physicians to supervise my test demonstrations was carried, an injunction would be served the following day and the tests thus stopped. At said meeting, therefore, the chairman, after consultation with the balance of the committee, announced that the proposed tests would not be made, just why they would not be made, and that "Dr. Leach will leave for his home on Sunday."

At once this announcement was made, and the meeting had closed and I had bid good-bye to the many who had loyally stood for the tests which had taken me to their city, I repaired to my room at the hotel and, not wishing to leave a single stone unturned, indited a letter to the Governor of Louisiana. In this I related the many and sundry excuses offered for not permitting the desired tests. Told of the excuse that probably none of my non-immunes were such in fact. That I had rescinded all desire to make the tests upon those who had volunteered to me, and would gladly accept any volunteers Dr. White or his cohorts could and would furnish; to all of which the opposition demurred. After relating the facts to His Excellency, I recalled his letter of welcome to me and his offer of "personal and official assistance," and requested that he offer a pardon to fifteen State's prisoners, whom he or his authorities knew to be non-immunes against yellow fever, said offer to be for volunteers who, should they undergo the tests under ar-

senization and survive, would be free men again. To this the Governor, under date of August 25th, 1905, wrote me (and same was received by me at St. Paul, Minnesota, on the 30th of August, 1905,) to this effect:

"I have yours of the 23d inst. Your proposition to demonstrate the efficiency of your system of arsenization by having some of the State convicts to volunteer as subjects for the test under promise of pardon by the State, is not practicable.

"The Chief Executive of Louisiana has no power to grant pardons, except upon the recommendation of the State Board of Pardons, which consists of the Lieutenant-Governor, the Attorney-General and the Judge who presided at the trial of the prisoner. Nor would public sentiment sustain such a thing."

Having done all possible, it is "up to the people."

On arriving at Chicago on Monday, I had the unique experience of meeting one of the editorial writers of *The Journal of the American Medical Association*, and of being requested by him to read his "write-up" of my endeavors at New Orleans and give him my opinion of same as soon as possible. This is my first opportunity to do justice to his "write-up," known as an "Unwise and Untimely Experimentation," and I take pleasure, therefore, in replying herein and now as follows:

In said editorial I find the writer takes occasion to say that: "If Dr. Leach's claims are valid, why were not reports made through accredited medical channels, and why has he delayed until now, in the midst of an epidemic, to give forth to the world the results of his experience and experiments?" My reply is, that if said editorial writer had read more, or remembered better, he would have written less hastily and with more justice; for arsenization has appeared on an average of once a month in some medical journal in the United States since September 3d, 1892 (and in many in Brazil since 1876—in the same country, by my pen, since 1900); that it has also been made public through daily papers and lay magazines since 1892, and that I most respectfully refer him particularly to Senate Documents and Reports above referred to as well as to his own journal—*The Journal of the American Medical Association* for 1895, under the title of Asiatic cholera, as presented at the Atlanta, Ga., meeting by Dr. Elmer Lee, to the *Medical Arena*, of Kansas City, the *American Homœopathist*, of Cleveland, the *Medical Summary*, of Philadelphia, the *St. Louis Medical Era*, the *Wisconsin Medical Recorder*, *Moody's Magazine of Medicine*, the *Southern Journal of Homœopathy*, the *Philadelphia Recorder*, the *Cincinnati Lancet-Clinic* (article by Ishmael da Rocha), and many, many others discussing, pro and con, both yellow fever and Asiatic cholera in relation to arsenization—both from the homeopathic and the "old school" standpoint.

This same Chicago editor quotes from the August 17th, 1901, *Journal of the American Medical Association*, to the effect that "Arsenic acts by stimulating the reproduction of cells, increasing the number of red blood corpuscles, rejuvenating the tissues and conferring on the economy an extraordinary degree of resistance to morbid influences."

This said editor seems to think something new; whereas, away back in 1881, Bartholow tells us that "Arsenic promotes constructive metamorphosis when administered in medicinal doses," "checks retrograde metamorphosis," and "promotes the appetite and digestive functions," while Prof. William Henry Porter of the New York Post-Graduate School, later says that "The arsenites are intensely irritating and poisonous to all forms of both animal and vegetable germ life; and that they produce in the system a new, normal or healthy activity of the liver."

While this is in no sense my reasons for believing in the protective virtues of arsenization, I have the honor to respectfully submit the above as something referred to by our editorial writer, but evidently thought by him to be something new.

My personal reason for believing in arsenization as protective of Asiatic cholera or yellow fever is that, as no two bodies can occupy the same space at one and the same time, so no two diseases,

being similar and therefore requiring the same centers of the economy through which to demonstrate their similarity, can simultaneously demonstrate their signs and symptoms; and that yellow fever and Asiatic cholera being, in my judgment, the analogues, if you will, of the physiologic effects of arsenious acid upon the human frame, neither disease can, simultaneously, affect a person deleteriously who is previously arsenicized to the proper degree; and this proper degree, from the experiences of our Brazilian colleagues, has been decided as above given.

One other point I would like to call to the attention of the editorial writer above referred to: If Dr. Leach has not for many years been presenting arsenization to our colleagues, how comes it that said writer knew of the book written by Dr. Eduardo Magalhaes of Brazil, and which said book is dedicated to the said Dr. Leach of St. Paul? It looks as though that writer might try it again and this time style his editorial, "Unwise and Untimely Comments."

If one would like to see why, in my judgment, arsenization will protect against Asiatic cholera, I would refer him to Bartholow, who quotes Virchow to this effect: "Virchow has pointed out the similarity in the *post-mortem* appearances of arsenic and cholera." Also, in the same volume: "It is a curious circumstance, first demonstrated by Virchow, that some cases of acute arsenical poisoning are not distinguishable by their symptomatology or morbid anatomy from cases of epidemic cholera;" and still again: "In still other cases the gastro-intestinal disturbance, the rice-water discharges, the collapse, simulate the algid stage of cholera."

I left for New Orleans August 10th, with a feeling best expressed by an experienced one, who said:

"Thus every man of real learning;
Is anxious to increase his store;
And feels, in fact a greater yearning;
The more he knows, to know the more."

I wanted to know, from actual, personal, practical test demonstrations, under unequivocal circumstances and surroundings, that arsenization would do what I believed, from reasoning, my way, it should do. I wanted to prove in New Orleans where they had yellow fever what our expert Brazilian friends had proved in Brazil under similar circumstances; and I, naturally, I think, thought every physician in the Crescent City would but too gladly welcome either a proof of prevention or a proof of negation. I believed, with Confucius, that:

"He who from day to day recognizes what he has not yet
And, from month to month, does not forget what he has attained to,
May be said, indeed, to love to learn."

I wanted to learn more of the prevention of yellow fever; and by actual personal test demonstrations; and I believed that my colleagues of New Orleans would only too gladly grasp the opportunity, so long as it was my funeral, if I did not "make good," to join me in making the proposed tests; especially as they were to be first made upon me.

It is a sad commentary upon the ordinary opinion entertained by the laity of our profession that arsenization as a protective against yellow fever still remains a mooted question in the United States, and that no amount of talk, for or against it, can ever decide the question; nor any amount of opposition of any kind prevent its eventual acceptance and universal use by the people, once it is proved, as I went to New Orleans to prove it, and as it certainly will be proved.

In closing, it is a pleasure to add that not less than half a million of our fellow citizens south of "Mason and Dixon's Line" have taken advantage of arsenization, and that they are today using the prescription as given above and, as intended, for all humanity.

This, as anyone can see, will give us, even if no more "converts" are added, one of the biggest, if not the very biggest, negative demonstrations of any prophylactic remedial ever made anywhere in the history of medicine during a similar length of time.

As you will have noticed above, the credit for having first discovered the prophylactic properties of arsenic against yellow fever belongs to and has been given to Dr. Rego Cezar of Brazil; and, as I wrote, in a certain noted place in New Orleans, before leaving there, so I

will close this with the following paraphrase on Bill Nye, in paying further tribute where said tribute belongs:

God speed Arsenization,
And Rego Cezar's fame;
"'Till everywhere that you have went,
They're glad that you have came."

[Written for the MEDICAL BRIEF.]

Spinal Irritation—Its Cause and Cure.

BY VIRGIL P. ENGLISH, M. D.,
Cleveland, Ohio.

Spinal irritation is an irritated or incapacitated condition of one or more of these nerves, due to pressure upon their roots, or upon the spinal cord. The pressure causing this condition is produced by inflammation and the resultant expansion of the surrounding tissues, or by a displacement of one or more of the vertebræ. Usually the latter.

In most cases this pressure upon the roots of the spinal nerves results from a weakness and compression of the cushions of cartilage between the vertebræ. This compression of the intervertebral cartilages permits the vertebræ to approach so near together that the nerve roots between them are compressed.

Symptoms.—Spinal irritation may cause any or all of the symptoms in the following list:

Headache, pains or oppression in the head, especially in posterior part or at base of brain; noises in the head, confusion, inability to think effectively or to stop thinking, dizziness, nervous headache, sensations that seem to the patient like a pulling or stretching of cords in the neck; functional disorders of the eyes, connected with pain or aching in the occiput or cervix, or both; aches or pains in the eyes or back of them, specks or spots before the eyes or blurred vision (a thorough examination by the oculist may not reveal anything abnormal); a frequent, instinctive desire to sigh or yawn, or take a deep, full breath (in some cases there is inability to do so, or but partially, owing to inability to fully expand the chest); palpitation or irregularity of the heart; pains, oppression, difficult breathing, or very peculiar, almost indescribable feelings in the region of the heart, lungs, stomach, or other parts of the chest or abdomen, that may have been diagnosed as neuralgia, rheumatism, digestive derangements, cardiac affections and various other disorders; aches or pains in the region of the kidneys, backache, sensations of oppression, constriction or pain like a belt around the body,

Fig. 1. The human spine is a curved column, consisting of thirty-three bones and intervening cushions of cartilage.

or around the right or left half; partial paralysis of the arms, shoulders, hands, lower limbs or feet, causing pains in these members, or a feeling of numbness, coldness, heaviness, or a tingling, or sensations that the patient may describe as the pricking of pins or needles, or as if the parts were asleep; sometimes the fingers feel too large; it is difficult to pick

up small objects, such as a pin or needle, and, unless looking, patient might not be able to ascertain whether holding the object or not; pains or burning in the heels, big toe or plantar region; sore, tender or burning points along the spine or in the limbs or feet; pains resembling sciatica or neuralgia; chills up and down back, sensations resembling the crawling of insects, creeping sensations, coldness or numbness; pain, soreness, tenderness or sensitiveness between the shoulders or along other parts of the spine; creeping or grinding pains, nervousness, sleeplessness, insanity, fugitive pains in a part or all of the viscera, impaired function of the heart, lungs, stomach, liver, kidneys, bowels or other vital organs.

Symptoms are usually aggravated by standing, walking, running, riding or twisting the body—anything that causes the vertebræ to settle down closer together, thus increasing the pressure upon the nerve roots.

Many cases of spinal irritation are diagnosed and treated as nerve exhaustion, neurasthenia, nervous prostration, rheumatism, neuralgia, nervous collapse, and various other disorders. And not infrequently, one or more of these disorders actually do exist in connection with the spinal irritation.

The foregoing list does not include all the symptoms caused by this disorder. It is seldom, however, that any one patient will have all of those mentioned. Usually one patient will have part of them and another patient will have others, according to the location and number of the nerves affected in each case.

The spinal column is a sort of tent pole, supporting the upper portions of the body. When the body is in an erect position each vertebra supports the weight of that portion of the body that is above it. The same is true of each inter-vertebral cartilage. Those in the cervical region support the weight of the head. Those in the lumbar region support the weight of the head and shoulders, the ribs and the contents of the upper part of the trunk. Upon the sacrum and the cartilage first above rests the weight of all the upper portions of the body. Each of the lumbar cartilages supports almost as much. In many persons there is the weight and pressure of a hundred pounds or more whenever the body is in an erect position. Whether standing or sitting this weight and pressure is constant.

The inter-vertebral cartilages are an elastic, compressible, India-rubber-like substance. They act as cushions or springs, responding to the shock in walking, running and jumping, thus decreasing the jar to the brain and all parts of the head and trunk. They have the same effect upon the body that the springs do beneath cars and carriages, and the rubber tires of bicycles, automobiles and other vehicles.

To accomplish the very function for which they are intended these cartilages must be, and are, readily compressible. So much so that the length of the body is considerable less when standing than it is when in the recumbent position. In Gray's Anatomy, page 304, we find the following: "In two hundred and eighty-seven soldiers measured by M. Robert the measurement in the erect posture was on an average 65.28 inches, and when in the horizontal, 65.79, a difference of half an inch."

It should be borne in mind that the compression of the cartilages just mentioned takes place in perfect health, and that it is perfectly normal. But there are a great many cases in which the cartilages become weakened and are abnormally compressed. Compressed so much that the vertebræ above and below them are close enough together to squeeze the roots of the spinal nerves that lie between them.

This pressure upon the roots of the spinal nerves gives rise to numerous symptoms that vary greatly, according to which are the nerves compressed, how many of them are thus affected, and whether the pressure is mild or severe. From the very nature of the conditions and principles involved these symptoms are very deceptive and misleading to those not familiar with the disease. A little light will be thrown upon this fact by considering what the laity call striking the crazy bone. As every physician knows, this consists of an impact upon the trunk of the ulnar nerve at the point where its covering of tissues is not suffi-

ciently thick to protect it from external violence.

The point in this to which I desire to direct particular attention is the fact that among the most noticeable sensations produced are those at the terminal filaments of the nerve branches. These filaments are distributed in the little finger, the adjacent half of the ring finger and the

Fig. 2. Through this column is a canal, in which rests the spinal cord.

corresponding side of the hand. These are the parts in which the sensations are most distinct. Along the trunk of the nerve in the arm and forearm, except at the point receiving the blow, usually, no sensation whatever is noticed.

What is true of this nerve is true of all others. When the root or trunk of a nerve is affected the most noticeable sensations are in the area reached by the distribution of its terminal branches.

Another illustration of this principle is seen in what is commonly called the "feet going to sleep." These sensations are caused by pressure upon nerve trunks in the thighs, usually arising from crossing the legs or from their weight pressing the thighs against the edge of the chair or other seat upon which the person is sitting.

Passing out of the base of the skull through the foramen magnum, the spinal cord extends down through the canal in the spinal column. Corresponding with every joint in the spine a pair of nerves is given off. These spinal nerves—branches of the spinal cord—extend to the right and left, through the inter-vertebral notches or foramen, a pair lying between every two vertebræ.

Together with the surrounding tissues these nerves pretty well fill the foramen. Not so nearly that they are affected by the ordinary compressions of the inter-vertebral cartilages. But so nearly that they are readily compressed and their functions interfered with by the pressure that results when the cartilages are abnormally compressed.

When the nerves are compressed that distribute their branches over the base and posterior portions of the head, there are the well-known aches, pains and distress so often attributed to reflex symptoms caused by uterine displacements and consequent pressure upon pelvic nerves.

When the nerves supplying the cervical muscles are compressed, the patient experiences those sensations that are so often spoken of as a drawing, pulling or stretching of cords in the neck.

When the roots forming the brachial plexes are compressed the shoulders, arms or hands are affected. There is often a partial paralysis of these members; the hands are often cold or numb, fingers feel too big, sometimes the hands and fingers feel as though they had gone to sleep—as though pins or needles were pricking them. Often there are pains in and through the shoulders.

When the thoracic nerves are compressed, there are neuralgic pains or distress that are often called intercostal

rheumatism or neuralgia. The patient is often unable to determine whether the distress is in the walls of the trunk or within its cavity.

When the upper lumbar region and lower dorsal are affected, there are often sensations that not infrequently are described as feeling as though there were a belt of pain or constriction around the waist, or around the right or left half. One patient thought she felt as though the lower part of the body was separated from the upper part, at the waist.

When the roots of the nerves leading to the lower extremities are compressed, the feet often feel as though they had gone to sleep, or as though pins or needles were pricking them. Sometimes there is a severe pain in the heel, sometimes the great toe is affected.

In some cases there is pain or aching between the shoulders, or a tender, sensitive condition; sometimes these conditions are experienced in the region of the kidneys or in other parts of the spine. In other cases none of these symptoms can be detected.

As the spinal nerves give off branches to the sympathetic system, a pressure of the roots of the spinal nerves often affects the vital organs. Not infrequently there are functional derangements of the heart; sometimes there are very serious digestive derangements; sometimes the kidneys are affected. Any of the vital organs, in fact, may be and often are, affected. Sometimes the bowels are affected. Many obstinate cases of constipation are due to this cause and can never be cured until the spinal irritation is relieved.

It is quite evident that the ordinary methods of treatment are entirely useless in all of these cases.

As nearly every part of the body is reached by the spinal nerves, either directly or by connection with other nerves, there is but a small area of the body that may not be affected by spinal irritation. Very many of the obscure cases of chronic disorders, in which the patient suffers year after year in spite of the best efforts of the physician, are cases of spinal irritation. Many cases called hysteria, cases in which the patient complains of sensations that seem too unreasonable to explain, except as a delusion, are spinal irritation. The sensations are exactly as the patient describes them to be, and they will disappear as the spinal irritation is cured.

As so many different parts of the body may be affected, so many different organs distressed and incapacitated, and, as the symptoms are often so varied, and, not infrequently, contradictory, it is not strange that this disease is so generally

Fig. 3. Between every two of these bones (the vertebræ) a pair of nerves pass out, one nerve extending to the right and one to the left. The spinal nerves or branches of the spinal cord (Fig. 3.—1, 2, 3, 4, 5, 6.)

misunderstood, and the patient permitted to suffer year after year.

But few physicians who are not very familiar with this many-headed monster will fully realize how many of their patients suffer from this disease in a greater or less degree.

More than half the satisfactory results given by osteopathy are secured in the

treatment of this disorder. This branch of the healing art is thriving upon a partial success in this class of cases. There are several thousand osteopaths in the United States, many of whom have no small following. Yet my methods of treatment will cure these cases in less than half the time required by any method of massage, with but a fraction of the expense, and will cure many cases that can not be cured at all by those methods.

The reason that medical treatment has usually been a failure in these cases, is because there has almost always been an attempt to do something that should not be done, and the very things that must be done in order to effect a cure are neglected. Most physicians attempt to treat effects. My methods are directed against the causes. When many would use strychnia, assafetida, etc., to stimulate the nerves, and tonics to improve digestion, I endeavor to strengthen and invigorate the inter-vertebral cartilages by the use of sulphur, lime, silica and other chemical constituents of the body, in connection with hygienic measures.

I attempt to supply the chemical elements of the body that are deficient in these patients. The chemical elements, a lack of which in the cartilages, leaves them soft, weak, inelastic, deficient in tonicity, and too easily compressed.

By hygienic measures I attempt to so direct the vital energies of the body that the fullest appropriation of these elements is secured. I teach the patients how to stretch the spine and relieve the pressure upon the nerves, thus securing temporary mitigation or relief of their suffering, even at the beginning of treatment.

By gradually building strength and tonicity in the weak parts, a cure is slowly, but positively, effected.

[Written for the MEDICAL BRIEF.]

Small-Pox.

BY CARL PUCKETT, M. D.,

Pryor Creek, Ind. Ter.

It hardly seems possible that anything new can be written about small-pox, and I suppose every physician knows from reading, if not from experience, how to recognize the disease; but, nevertheless, I will attempt to reiterate what has been said and possibly give a few new points from observation of the disease. Having recently had considerable experience, I may at least bring to my readers a review of variola.

This article is based on the observation of thirty-five cases, and a close study of twenty-two cases that I treated during a recent epidemic among a force of lime kiln laborers. The type of the disease was unusually severe compared to some of our former epidemics. I have had three cases of confluent form, but all recovered, although slower than usual.

The symptoms were, as a rule, definite and easily recognized. The incubation was from ten to twenty-three days, with an average of about fourteen days; only one case of twenty-three days, however. The invasion was usually with slight chill, followed by a rapid rise of temperature, severe frontal headache, lumbar pains and aching limbs. Vomiting was present in about twenty-five per cent of the cases. There were two convulsions among the initial symptoms of one case, a child of four years. The tongue is coated, white, brownish posteriorly and the breath has a very bad odor. The eruption appears in three to five days from the appearance of the initial symptoms. Begins first on the forehead, about the clavicles and on the wrists, and rapidly extends over the rest of the body, till it is complete in the next twenty-four hours. The eruption begins as small pin-head papules, which impart a shotty feel to the hand, especially on the forehead; the temperature subsides at this time and the patient feels fairly comfortable. Within another day the papules change to vesicles, which are round, elevated, and have a small impression in the center. About the eighth day the vesicles change to yellow pustules. The temperature now rises a second time, and the symptoms may be very severe with delirium caused from fever and absorption of poisons from the pustules. The pustules appear over the scalp, on the eye-lids, and among the eye-lashes, and frequently on the lip, extending as far as the mucous membrane, as well as all other parts of the body. In the ma-

jority of cases there was sore throat, sometimes very severe, caused by the appearance of vesicles within the pharynx. By the twelfth day the pustules began to dry and form crusts and convalescence was established. By this time the patients usually felt fairly comfortable, and were anxious to be up unless their feet were too painful to walk, which they were usually for several days in severe cases. It is from two to three weeks from the beginning of the encrusted stage before it is safe to release the patient from quarantine. The complications were few compared to the severity of the disease. The eyes required constant attention in severe cases, and especially those in confluent form; the eyes of two of my patients, males, in confluent form, were completely closed for three or four days, due to the swelling and eruption about the eyes. It looked as if the eyes would be lost, but with constant treatment there was only a severe conjunctivitis in the worst. The pharyngeal complications were severe in these cases, and there was marked swelling of the lymphatic glands of the neck; one of these cases developed a light attack of pleurisy about the time of being released from quarantine, following a cough, from which he had not been free since the beginning of convalescence. Another case of confluent form, female, four months pregnant, primipara, recovered with lighter complications than either of the males and had no symptoms of abortion. Boils and carbuncles were very frequent during convalescence, usually following the more severe cases.

At the onset, and before the eruption appears, a mistake in diagnosis might easily be made if small-pox was not known to be in the community, but by close observation, with symptoms already mentioned, I think a mistake can usually be avoided.

A prognosis can scarcely be made till after the appearance of the eruption. Very severe initial symptoms sometimes preceded a mild attack, in which the eruption was very light. The greatest danger and most severe symptoms were present in the pustular stage. If the eruption is very intense, the symptoms are usually much more severe and the prognosis should be guarded; there is danger of the disease becoming confluent, which also makes it more uncertain.

In the treatment I sometimes used opium if pain was very severe at onset, but usually Dover's powders with salol answered the purpose, five grains of former to ten grains of latter every two or three hours till symptoms abated, then salol alone in ten-grain doses is better, which is good to be used up to second or third day of pustular stage of eruption. It is analgesic, slightly antipyretic, with very little depression to heart's action, and modifies pustulation; in fact, this is where it does the most permanent good.

I used chloral hydrate and cold sponging for restlessness and delirium; also cold sponging alone for fever. Carbolic acid, one drachm to pint of water, is very good as local application for itching, burning and pain during height of eruption. At the beginning of desiccation, I used carbolated petrolatum locally. For the eyes I used a boric acid solution as an irrigation and instilled nitrate of silver solution, two grains to the ounce, five to ten minims three or four times daily, according to severity, where eyelids were swollen so that there were accumulations of pus between and under them; it quickly cleanses the eye-ball of all accumulated secretions, etc.

I may say a few words here relative to vaccination. We usually consider vaccination as only lasting or conferring immunity from seven to ten years. It probably does not confer immunity longer than that as a rule, but will make variola much lighter on a person even as late as forty years after vaccination. All of those that had ever been vaccinated in their lives had the disease in much milder form than those that had not; in some instances only varioloid where vaccination had been forty years previous or during the Civil War, so we see that even though immunity is passed we are in a measure protected.

Vaccination four to six days after exposure will prevent small-pox. One case, for illustration: A married man, who was in the latter part of the vesicular stage when I vaccinated his wife and two children, who had been in the same room

with him from the first appearance of symptoms, and stayed there throughout the attack, while none of the other members of the family contracted the disease. There were a number of similar instances, and I am quite sure that the spread of the disease can be prevented by vaccination after exposure.

I used vaccine tubes and had ninety-seven and five-tenths per cent of successful vaccinations; the failures were only on those that had been previously vaccinated twelve to fifteen years before.

As a last few words on small-pox, I can truthfully say it is justifiable of all the horror, dread and fear with which it has been looked upon. Those in confluent form and many others during the height of the eruption present a terrible picture of suffering. These few points have been written as observations and opinions formed from waiting on the disease during a recent epidemic. I hope they may be of some help to the readers of the BRIEF.

[Written for the MEDICAL BRIEF.]

Rivals of Germs.

BY JOSEPH D. HARRIGAN, M. D.,
New York City.

The old rivalry between germs and chemicals for recognition as the primary cause of disease should, it seems to me, take on new life with the recent discoveries in radio-activity.

Causing, as they have done, a revolution in the scientific world generally, these discoveries have apparently in medicine been utilized hitherto merely in an extremely narrow and limited field.

Restricted to their therapeutic effects, the radio-active substances have been discussed most voluminously in all the medical journals on the globe. The number of cures wrought have been remarkable.

Nowhere, seemingly, has the sinister side of these interesting substances been deemed worthy of very deep investigations. As a cause of disease they have been more or less neglected. The fact that most infinitesimal quantities of these chemicals are capable of producing most disastrous consequences to the animal economy when brought into what might be called "striking" distance, should give one food for profound thought. The fact that they have the faculty of producing molecular disturbances in other bodies at distances of several feet from them, imparting to them at the same time some of their own individual activity, should be a strong incentive to us to review the claims of chemicals and other forces produced through them as positive causes of disease.

According to reports concerning radio-active substances generally, they possess, apparently, all the peculiar properties of which, seemingly, in the minds of many, germs have had hitherto a monopoly, and, moreover, are capable of duplicating all the achievements of the latter.

Thus, for instance, were a small piece of polonium displayed in a room darkened for the purpose, as was done recently by Prof. W. Markwald of Berlin, and pieces of barium, platinum and zinc-blende placed near, the latter will glow with a bright, greenish light. They do not require to be in contact in order to develop these effects. They need only to be in the room in order to be affected.

This opens up such a wide field for speculation and investigation as applied to medicine, that it surprises me that nothing has been developed hitherto along the lines of chemico-activity in its relation to the etiology of diseases.

With a thorough realization that health is merely a perfect adjustment of the chemical and electro-chemical relations of the body, it would appear to me criminal neglect to permit the years to pass along without a thorough investigation of the various chemico-active substances that, diffused throughout all nature, must have an effect upon this delicate adjustment of the organism, resulting at various times and in different places in widespread epidemics of disease.

The tendency of the present day to ascribe all diseases of an epidemic nature to germs has become so universal almost that it seems to have become forgotten that great epidemics of diseases have visited whole communities at times directly traceable to a deviation alone in the chemical adjustment of the body.

Take, for instance, scurvy, that scourge of the sea at various times, and of the land as well, in various of the great wars. No suspicion of germs in that disease is entertained. On the contrary, clearly and unmistakably proven to be due to the deficient supply to the body of such chemicals as are found generally in potatoes and green vegetables, such as, for example, the carbonate of potassium; it may be set down emphatically as a chemical disease, or rather, speaking more correctly, as a negative chemical disease.

History is replete with harrowing tales of the ravages wrought both on sea and land by this dread disease, due simply to what? To a mere matter of an absence of something from the every-day diet. And yet, examining the clinical histories of cases of the disease, one must be struck with the remarkable similarity in the symptoms existing in this disease, as compared with those of many of the so-called germ diseases.

Running through all the stages from the initial or prodromic period of malaise to the rheumatoid pains in the calves of the legs and in the back, the purpuric efflorescences, the eruptions of a decidedly hemorrhagic character, the nodular eruptions, as, for instance, lichen scorbuticus, lichen lividus, acne scorbutica, purpura papulosa; or vesicular eruptions, such as herpes scorbutica, purpura vesiculosa, etc., they present appearances for all the world almost identical with those of the so-called germ diseases.

And all of these symptoms, it is to be borne in mind, due to an absence of a certain chemical ingredient.

In other words, it might be termed a negative chemical disease. Per contra, we should be led to expect positive chemical diseases, due to the presence of certain chemicals in the body, producing even more pronounced disturbances of the system, and also occurring in endemic and epidemic forms of more or less widespread nature.

That such diseases do occur epidemically is not only probable, but is also an actual fact, as testified to by several authors—Liebermeister among others.

As a rival to germs in causing disease, the absence of chemicals can simulate the incubation period and also disease produced by this absence can attack vast numbers of people at almost the same time, but the rivalry apparently stops short when it comes to contagion and also to the conveyance to distances.

But does this hold good with regard to positive chemical diseases? Can we have contagion through chemicals, reduplication and likewise conveyance to distances? If we can prove that chemicals can possess all these properties, then, indeed, have we a most formidable rival to germs, and one that would prove far more satisfactory in explaining many hitherto enigmatical happenings in disease that germs have failed to explain.

Leaving aside the radio-active substances, of which we made mention at the beginning of this article, and coming down to the most ordinary chemicals, a few moments' reflection will, I think, convince anyone of the fact that chemicals, more particularly in gaseous form, can be conveyed from one person to others, both by contact and also by mere proximity; can likewise be conveyed to distances, by means of clothing, letters, rags, etc.; can produce the same disease at distant and diverse points far removed from the original focus of distribution, thus simulating propagation, and can continue almost indefinitely, producing fresh outbreaks of the disease, until finally too attenuated to operate farther. This can be proven by any one experimenting with even the most ordinary chemicals.

To mention one crude example of the conveyance of chemicals to distances might be cited the common, every-day experience of a person present at a "smoker."

He may not participate in the smoking at all, yet it requires but a short time to be in the room where the smoking is being carried on in order to have the clothing completely saturated with the tobacco smoke. He goes home reeking with the fumes to the disgust of his wife, contaminates the air of his sleeping apartment, the air of his wardrobe, the clothing hung therein, possibly even some of his wife's, and it may be a couple of days before all traces of the chemical called tobacco smoke have disappeared. But he

is only one of several hundred that have been present at the smoker. What has happened in his home has also happened in theirs. And here, there, and everywhere throughout the city have many homes been contaminated by the odor or gas or chemical called tobacco smoke. Fellow passengers in the street cars have received some of the supply, which might be said to be almost unlimited in quantity. They have received even enough in the short space of time spent in traveling to be enabled to participate in the distribution process and convey to their homes in turn a share of the chemical.

Betaking ourselves to the various arts and trades, we find the workers therein acting incessantly as carriers of chemicals of most diverse characters and properties, either clinging to their clothing in solid particles infinitesimally small, or in gaseous form, permeating all their garments.

The trained insurance examiner, always solicitous concerning the occupation of the applicant for life insurance, depends upon his olfactories to assist him to a conclusion in this regard in many cases.

Thus, for example, the tanner has clinging to him the odor of the tan-yard, the blacksmith the odor of the blacksmith-shop, the painter the odor of the paint-shop, the coachman or stableman the overpowering odor of the stables, etc.

Notwithstanding all attempts at cleanliness among the workers in the various trades, there still cling to many of them at times the peculiar odors or gases or chemicals pertaining to their occupations. These odors are conveyed everywhere wherever the bearers of them go. They even remain for hours in a room after the visitor conveying them there has taken his departure. Frequently does the doctor open the windows and doors wide after the visit of such a patient, in order to clear the room of undesirable triple extracts.

We are all familiar with the odors of many of the lowest animals. Each of the various families and species have natural odors by which they can be recognized, even at great distances, although the animals themselves may be out of sight. These odors or gases, or, in other words, chemicals, are sometimes conveyed vast distances, and cover wide areas of ground, contaminating the air, leaving traces in footprints that serve as unerring guides to four-footed hunters who would destroy them.

So it is likewise with the human family. There are natural odors or gases or chemicals clinging to each and every individual one of us, imperceptible probably to ourselves except under certain circumstances, but easily recognizable by the lower animals, whose sense of scent is to a far greater degree than ours better developed by nature. Thus a dog will immediately recognize his master even though he may not have seen him for years—simply by the scent. The pursuit of runaway slaves for great distances with bloodhounds not only exemplifies the presence of this natural odor, but also shows how it can be conveyed for miles and miles, with a certain quantity left in every footprint, on every twig or blade of grass touched by the slave, and likewise filling the air to a very great distance around the fleeing object.

Now, if there are natural odors pertaining to us all in health capable of being conveyed distances, contaminating every thing with which we come in contact (a sort of natural contagion or normal contagion), contaminating also the air around (a natural or normal infection), as a corollary, what must we expect to find in disease?

Why, the very same thing intensified.

To any one not completely carried away by the germ theory of disease, the possibility should at once suggest itself that the emanations, or odors or scents, or, in a word, the chemicals in gaseous form, arising from the patient, are as likely to be the prime factor in causing the outbreak of the disease in others—visitors to the sick-room—as well as through them conveyed to others at distances, without in any manner whatsoever depending upon germs for the contagion or the infection or the so-called propagation of disease.

The chemical adjustment of the body is so delicate that the presence of certain chemicals in the atmosphere is just as capable of causing a long train of phe-

nomena that we call symptoms as does the mere absence of some certain chemical ingredient from the food as we find in the case of scurvy.

When we come to realize the extraordinary amount of activity contained in even the most infinitesimal quantities of certain chemicals, and also the fact that they can be conveyed everywhere from the original point of disease in quantities sufficient to set up disease in hundreds of places, until finally too attenuated to operate further, it should certainly command at least some of our attention.

There are dozens of things pertaining to epidemic diseases totally inexplicable by means of the germ theory that are as plain as daylight when read in the light of chemistry.

To cite one example: We might attempt to adjust the extraordinary spread of influenza by leaps and bounds to the germ theory of disease from now to doom's day and only get ourselves tangled up worse and worse as we progressed; whereas, the whole thing is perfectly clear and intelligible on the basis of the presence in the atmosphere of certain chemicals that cause the disease. We may not know what these are, but we do know that their presence must set up disease, and that of an epidemic character, just as the absence of chemicals causes scurvy.

The absence of also or deficiency in the normal supply of some one or other of the chemical ingredients in the atmosphere might be conjectured as a possible cause of epidemic disease in certain cases, just as the absence of certain chemicals in the food is known to cause scurvy, but the limitation of this article preclude my venturing further than merely mentioning it.

In a thousand different ways can epidemic diseases be explained on a purely chemical basis, without the intervention of germs, did we give but a tithe of the time to the subject that is now devoted to the unsatisfactory pursuit of the latter.

Just as concrete life depends upon chemicals for its bedrock foundation, so does disease, if positive, depend upon the presence of, and if negative, the absence of chemicals. It is easy enough to understand that germs never always existed. If they did they would be in possession of one of the divine attributes, viz., omnipresence.

They depend upon chemicals for their bed-rock foundation of existence; have sprung into existence in past ages from that foundation; spring into existence at the present time from the same foundation, and will probably continue doing so until the end of time.

In other words, we have had spontaneous generation at some time in the past, have it continuing throughout the present and will, no doubt, have spontaneous generation till the end of the world.

We have as much right to expect it as we have to expect spontaneous combustion.

To sum up briefly, we should expect to find:

1. As a corollary to the epidemics of scurvy, due to an absence of chemicals, epidemics of other diseases due to the presence of chemicals either in food or in the air we inhale.

2. From the peculiar properties inherent to chemicals, we should expect to find them capable of duplicating all the effects hitherto accredited to germs.

3. That particularly in gaseous form, they are capable of producing these effects to an almost unlimited extent, both by nature of the great quantities developed in this form and by the ease with which they are conveyed to distances, clinging as they do to clothing, letters, etc., in manner similar to perfumes or scents of flowers, but, unlike the latter in their usually pleasant effect, bringing with them wherever they go the baneful message of a withering destruction.

668 Lexington Avenue.

[Written for the MEDICAL BRIEF.]

Calcium Sulphide.

BY J. M. FRENCH, M. D.,
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Calcium sulphide (calx sulphurata, U. S. P.) is a mixture of true calcium sulphide, calcium sulphate, and carbon, which should contain from thirty-six to sixty per cent of absolute calcium sulphide. As a matter of fact, however, most of the

specimens found in the shops contain very much less than that, some of them as little as five or ten per cent, since the drug decomposes rapidly when exposed to the air. For this reason it is practically worthless in the form of a powder, and the ordinary unprotected tablet is little better. In order that it should possess and retain the proper strength, it is necessary that strictly fresh material should be made into an easily disintegrating pill, tablet or granule, and that this should be properly coated with a material which is as nearly as possible air-tight, and yet readily soluble. The only safe rule for the physician in the use of calcium sulphide, is to find a manufacturer whose product is reliable, and will produce results, and then always use the goods of this manufacturer.

As might be expected in view of its ready decomposition, and the great difficulty in procuring a fresh drug of proper quality, there is among practical physicians a wide difference of opinion as to the uses and value of this remedy, some claiming remarkable virtues for it, while others look upon it as inert and valueless.

In general, it may be said that the physiological and therapeutic actions of calcium sulphide are those of sulphur. This has long been known as a popular systemic and "blood remedy." Where our fathers took sulphur and molasses, we now give calcium sulphide. If this is not strictly true, it at least gives an idea of the modern uses of the drug. It will be noted that the field of calcium sulphide is very largely that of echinacea, and it is also true that in this field these two drugs have no rival.

Ringer was one of the first, if not the first, to recommend the use of this drug in small doses, frequently repeated; and in so doing brought upon himself the accusation of being "hokeopathic." He advocated its use in doses of one-tenth grain every hour, and claimed to obtain positive results from this dose.

Cushny discusses its use externally, but dismisses its internal use with the simple statement that "it is seldom used internally," a statement which is hardly justified by an examination of current medical literature.

Shoemaker says it is useful in styes, acne, and furuncles, and prevents suppuration when given early.

Ellingwood considers it specific in glandular, nodular, and pustular suppurative inflammations, especially of the skin. He adds that it is most generally relied upon to overcome the tendency to the formation of crops of boils.

Earp reports cases in which it has proved beneficial in carbuncle, orchitis, epididymitis, boils and abscesses.

Watson gives a favorable account of its use in several cases of phthisis.

Coleman claims to be able to abort whooping cough and other contagious diseases by its use, when the treatment is begun early.

Abogado affirms its efficacy in diphtheria, claiming that it cures mild cases without any further medication, and in severe cases proves a valuable adjunct to the anti-toxin method.

Castro and others have urged its value in small-pox. His rule is to begin treatment the moment the malady is suspected, and saturate the system as soon as possible.

Shaller believes that all the contagious fevers are more easily controlled and freer from sequels when the sulphide is used than otherwise.

The following are the principal indications for its use:

1. To stimulate secretion and relieve distressing symptoms, in cough and bronchial catarrhs, where the sputum is tough and scanty, the cough harsh and distressing, and the expectoration putrid.

2. To prevent or abort boils, especially when they occur in successive crops, and to check suppuration and reduce inflammation of the lymphatic glands.

3. To avert or obviate sepsis, in the treatment of all zymotic and septic diseases.

My own experience in the use of calcium sulphide has taught me its great value, and the necessity of giving it boldly and for effect. It has also taught me to be extremely careful to use only a reliable preparation of a fresh drug, put up by a manufacturer in whom I have learned to have confidence.

One use of it I believe to be of sufficient importance to be worth calling especial

attention to. I believe it is possible to produce temporary immunity to most contagious diseases by promptly saturating the system with this drug, and maintaining saturation as long as the exposure continues. An illustration of this fact occurred in my practice last winter. A lady of thirty-five years was taken down with scarlet fever, which ran a typical and moderately severe course. The house was quarantined and in it were confined the husband and little daughter of the patient; also, the husband's sister, none of whom had ever had the disease. From the first I filled them up with calcium sulphide, using four grains daily for the child, and six to eight for the adult. They were all in the same rooms and were freely exposed throughout the whole course of the disease, but none of them contracted the fever. Of course I know one swallow does not make a summer, but as a link in the experience of the profession in this line, I think the case may be worth reporting.

At our local medical society, a few years ago, a discussion arose on the merits of this drug. Dr. J., who is an enthusiast in its favor, claimed great things for it, while Dr. B., who is by nature skeptical, had no faith in it. He was at the time suffering from boils, of which he had had several crops, and had tried various remedies, but to no success. Dr. J. assured him that if he would use a reliable brand of calcium sulphide in proper doses he would change his mind as to its usefulness and activity. He agreed to do so, and was soon convinced by being cured, recanted his former opinions, and became an enthusiastic believer in and advocate of calcium sulphide. Last spring I read a paper before our district society, in which I spoke favorably of this drug. One brother jumped on his feet to say that he had used the sulphide faithfully, but had never been able to get any results from it. Dr. B. at once came to my aid, and suggested that from his experience, if you got a good brand of the real thing, it was all there, and would do its work as advertised. Then Dr. J. spoke up to say that if he should have the failures which the brother had reported with this drug, he should think it was time to try some other manufacturer. So they two are now united in their belief as to the efficacy of calcium sulphide. But Dr. B. remarked to me on the way home that he knew of but two manufacturers in the country who could be relied upon as putting in the market a first-class drug.

[Written for the MEDICAL BRIEF.]

If My Boy Becomes a Doctor.

BY C. E. BOYNTON, M. D.,
Los Banos, Cal.

Should my son ever begin the practice of medicine I wish him to know these few things on the side:

Do not handle a nerve-straining case alone, any more than you would attempt to lift a load too heavy for one man.

Do not neglect your meals or sleep to any considerable extent because of your practice. If you do you will be the loser by it in the long run.

Never force a horse in a cruel manner to reach a case sooner. If you kill your horse to save your patient you and the horse are the sufferers. About one patient in five hundred may be generous in dealing with his physician.

If you will have to look to the county to pay you, in this case first find out whether the county Supervisors are willing to promise (the promise is best in black and white) that you shall be paid. Of course, if your pull is cut and dried or your graft is solid, you do not require this advice.

It is said that a lawyer can know too much law to be successful. If you are unable to bound all the ventricles of the brain, you may be a success as a physician in more ways than one.

It is the man that can deal with a question expeditiously that wins. He must know what to consider and what to pass over.

Farmer Brown is poor and in debt, comes to you with $2.50. August, mosquitoes, stagnant water, yellow sclerobic man, generally healthy, now feels mean. It is foolish to examine his blood, urine, feces, retina, and spend an hour inspecting lungs, sputum, heart and history. You can size up his case to the limit of his pocket-book certainly and have him pack-

ing away his medicines in twenty minutes easy. And the $2.50 can be yours and he will call again. You must learn not to put your time into a hole where it yields nothing or worse. Dispatch pays. Folks like it.

When pay is doubtful, the patient unreliable, hygienic conditions bad, and the case a mixup, avoid it and have more time to watch your office.

Do not fear to say: "Sir, your case is one that demands hard work of your physician. I have undertaken a sufficiency of work already." Understand, I study my cases This is a doctor's duty to his patients. If a doctor attempts too much work he can not study his cases. You must seek another adviser. In this you may assist him, of course.

A patient respects a doctor that does not jump to grab his case as a hungry dog jumps for a bone.

Do not suffer under the abuse of a critic and fault-finder, but promptly drop a case where you are given to understand that by being called at all to such "quality" you are being greatly honored.

A young doctor just locating in a town may get dirt like this flung at him: "We always employ Dr. Blank, but as he lives at some distance we sent for you." Really, all they are after is saving a dollar. These people will be poor pay and kickers. It may be as well to say, "Really, I do not wish the case under such circumstances. You must send for Dr. Blank." This may make your start slower, but more substantial.

In dire calamity, when anything would be sacrificed to save the patient, it is then when people are willing to turn to the physician they can not abuse for help.

When people say much about their poverty do not hesitate to say, "There are cheaper physicians. My prices are high. Why come to me when you are not able to employ me?"

Ever impress your patient that you value your time not for the money of possible practice, but for the study hours it represents.

Do not think too much of the proverb, "A still tongue means a wise head." Let people know you can talk. That you have opinions, that you are an individuality and above parsimony, policy, practice hunting and little things generally.

There are people who employ a physician in the same spirit in which they hire a day laborer. Large employers, sometimes, are shy of the self-respecting, self-reliant man. They presume that Dr. Blank knows his trade and they will hire him just as quick, or a little quicker, if he is a poor excuse of a man. You will hear them say, "Oh, he is a fine doctor if you get him when he is sober." Or, "Doc's all right when he has a drink in."

There is one very important rule of life, never degrade yourself. That is, never let liquor or dope cause your brain to halt, stumble or play the fool. Never do what you are ashamed to do.

It is a fine thing always to be kind, sympathetic, fluent, awake and companionable without getting too near, without allowing familiarity carried too far. I think of a man that has many "friends"—they borrow his money and never repay it. I think of another man, just as well liked, as well able to loan his money, but no one asks to borrow of this man. Be careful that you do not err in ways that will prompt your friends to always stand you off.

Be nobody's door mat. When pay for an office call is due say, "two dollars, please." If he says, "I will hand you the money to-morrow." Say, "you see the printed rules, 'office calls cash.'" If no more is said most likely the man gets the cash for you. Do not fall into this "all right, all right" way when they try to stand you off, but give them to understand that it is not all right, and must be set right.

It is, as a general thing, hard to make as much money at medical practice as at blacksmithing, plumbing, or saloon-keeping. If a man is not sharp and exacting, unless he is a genius, a wonder, a man of exceptional tact, he may have to face poverty in old age, if he is a doctor. So it is, if my boy practices medicine I shall see that he has a good business education, as a matter of self-preservation.

I am a great admirer of the MEDICAL BRIEF.—J. C. ANDERSON, M. D., Alexandria, La.

[Written for the MEDICAL BRIEF.]

Observations Concerning the Bottini and other Operations for Hypertrophied Prostate.

BY M. R. BARKER, M. S., M. D.,
Chicago, Ill.

Mercier first developed a method for operating upon the middle lobe of an hypertrophied prostate, by means of which a portion of this lobe could be cut or torn away. This method consisted of an instrument introduced into the bladder, through the urethra, like a metal catheter. The instrument was provided with a short cutting beak, so constructed that it could be made to grasp and cut, or tear off, pieces of the middle lobe, and thus dig a channel through the prostatic tissue and provide a way for the urine to escape. This operation did not meet with very extended, nor enthusiastic, approval by the surgical profession. The danger from hemorrhage and sepsis was great, and there was no way of controlling either. Yet this work was an advance step in the right direction, and Mercier has properly received due recognition for it.

In 1874 Bottini promulgated his operation, the inspiration for which was gained from the Mercier method, upon which it is an improvement. Bottini has since improved his instrument many times, and now it is as nearly perfect as it can be. It is hardly necessary to describe, more than briefly, the Bottini method, as it was almost universally adopted by the surgeons of the world, and used in thousands of cases and in every land. Bottini's method consists of an instrument so constructed that it could be introduced into the bladder, through the urethra, the same as the Mercier instrument. It has a short beak and a hollow shaft. A platinum blade is made to fit a slot in the beak. This blade is connected with a battery, through the shaft, and is thus heated red-hot. The blade is then drawn slowly through the diseased prostatic tissue, burning a groove as it passes. Three of these grooves are usually made, one posteriorly and one on each side of the mouth of the urethra. These grooves do not grow together, but remain open channels for the passage of urine. It is easy to understand that this operation was an improvement upon the Mercier method. The burning prevented hemorrhage, to a great extent, and the wounds were less susceptible to infection and they would not grow up. The Bottini operation was performed for every class of hypertrophied prostate. There was no differentiation made and its failures were quite numerous. In that class of cases where the enlarged prostate had so disarranged the musculature of the bladder that it could not perform its function, and in which the nerve supply was interfered with by pressure of the large prostate, this operation could not cure as it did not remove the cause of the trouble. Many of these cases which were not cured, however, were palliated, for it made a much more free egress through which the urine could run from the bladder. Hence, there was less residual urine, and what expulsive force the bladder still possessed could be used at better advantage. The operation was criticised, however, from different standpoints. It was called an unsurgical procedure because it did not remove anything, and must be done without the aid of either of the senses of sight or touch. Sometimes the grooves were burned too deeply and too long; at other times the reverse was true. Sometimes the blade was too hot, and again not hot enough. In other words, the whole procedure was uncertain. Occasionally hemorrhage followed the operation that caused anxiety on the part of the surgeon and patient, and sometimes infection followed. These things prompted renewed activities in the surgical mind to evolve some other method for the relief of these cases.

The relation between the testicles and prostate having been known for many years, and the fact that the removal of the testicles in some of the lower animals caused the prostate to atrophy, led some workers in this field to believe that castration would cause the prostate to atrophy in man. Hence, in 1885 Sinitzin performed double castration upon a man for the cure of his enlarged prostate with apparent good results. In 1894 White and Ramm, prompted by the same idea, and

working separately and unknown to each other, performed double castrations for the cure of this trouble, with encouraging results. Following the publication of these cases, the operation was performed many times, by different surgeons, with varying results. The per cent of mortality was large, as it will always be, in any major operative procedure where it is done as a dernier resort. This was naturally the case in this operation, for men would not submit to it as long as there was any other alternative. Hence, a very large per cent of patients were very feeble when the operation was done. Less than fifty per cent of those who survived were cured, while a quite large per cent were not benefited. Unpleasant psychic conditions followed in a good many cases, due to the removal of the testicles. In view of the mortality, and all the unpleasant after-conditions that followed this operation, surgeons were again compelled to seek another way.

Isnardi reasoned somewhat in this fashion: If some operation could be devised that would produce the same effect upon the prostate that double castration does, and the evil effects of castration avoided, such an operation would meet the conditions. Believing the vas deferens was the connecting link between the testicles and prostate, and that taking a piece out of each of these, in any case, would destroy the connection between the two and produce the same result as castration, this operation would be submitted to much earlier than castration; hence, would have that advantage. It could be done under local anesthesia and was in fact a minor operation. The operation was performed many times, but did not meet the hope of surgeons, yet it was probably more extensively employed than the operation of castration. Of these two last methods, we may say they were operations on one portion of the sexual system to relieve a diseased condition of another portion of the same system, and were indirect and unsurgical in this respect, and the relief sought, as it must be in all such indirect methods, was only partial and disappointing.

In passing, we may also mention the operation promulgated by Bier, which consisted in ligating the internal iliac arteries on both sides, thus cutting off the blood supply to the prostate, in the hope that such a procedure would cause the hypertrophied gland to atrophy. This work was done extra-peritoneally. Bier gained his inspiration for this operation from reported successes that had been produced by the ligation of the uterine arteries and double oöphorectomy for producing atrophy of uterine myomatous tumors. This work was too major for prostatics and did not gain surgical approval to any extent.

We have spoken of these operations in this paper for the reason that they indicate the activity of the surgical mind during the period between the decline of the Bottini operation and up to our present methods of operating upon the hypertrophied prostate, of which we have spoken in previous papers.

The question might arise in the minds of some: In view of the different methods of operating for the cure of hypertrophied prostates that have been devised, used and discarded within the last forty years, have we yet reached that high degree of proficiency which will stand the test of time? We do not know this. We only know that the work now being done is based on sound surgical principles and whatever of improvement may come must come along these lines; and that every true surgeon will work unceasingly to overcome faults that may exist, and will hail with delight any improvement in technic or method that will add one iota to the safety and comfort of his patients.

We would not convey even a suspicion of criticism upon any of the operations we have mentioned in this paper. They were all promulgated by noble men having the best interests of suffering humanity at heart. They did not arrive at their conclusions hastily, nor did they put them into operation thoughtlessly. The operations which have led up to our present and better methods in this work, characterize the caution that has ever marked the surgical profession. We have no established operative procedure today that has not been approached in this careful manner. While the results of these

methods were not as satisfactory as those which follow present and more scientific work, they were, nevertheless, good, and mankind owes to these now discarded methods a debt it can not pay.

The Bottini operation is the only one mentioned in this paper which still has a place in the surgery of the prostate. Many surgeons insist that it now has no place in this work, but I am sure they are mistaken and must join issue with them. This operation has two important places, in my judgment, in this work: First, in a certain well-defined class of cases in which it is indicated and should be the operation of choice. Second, in another class of cases where it is not the operation of choice but is justifiable. We have stated the well-known fact, in a previous paper, that prostacism may be caused by a fibrous band surrounding the neck of the bladder. This is a form of hypertrophied prostate. A portion of prostatic tissue, surrounding the neck of the bladder, hypertrophies, forming a ring about the urethra at the neck of the bladder. This ring mechanically occludes the urethra. The musculature and nerve supply of the bladder wall are not materially interfered with. The subjective symptoms are those due to dysuria and enuresis. Digital examination per rectum reveals nothing in many of these cases to the unskillful. One must be familiar with this work in order to detect this ring by digital examination in most cases. For this reason many wrong diagnoses have been made. The sound may pass with difficulty, or may not, depending upon the position and condition of the ring. If this ring is suspended, as it were, in the tissues so that when the detrusor urinæ and sphincter vesicæ muscles contract to expel the urine, it falls into the mouth of the urethra, acting as a stopper, the urine does not pass normally, if at all, while a sound passed from the opposite direction may enter the bladder easily. This has been the rule in my experience. There are cases, however, where this ring is a tense band and as time goes on, it grows tighter until the opening through it is so small that urine can not pass. In these cases a sound can not be passed at first, but usually a filiform bougie will pass, which can be followed by small sounds and thus the canal dilated. This dilatation, however, amounts to nothing, so far as treatment is concerned, as it will close up in a very short time, and the dilating can not be performed too frequently, as it will set up an inflammation in those tissues and then trouble is without end. In this class of cases the Bottini operation is admirable. It can be done under cocaine anesthesia. It burns three grooves through this fibrous ring, usually severing the ring in three places, affording ample room for the escape of the urine. The patient is up in a day or two and has no unpleasant urinary trouble following the work. In other words, it cures the case in the most satisfactory way possible.

In the second class of cases, where the operation is not the one of choice, but justifiable, is where the patient is suffering with prostacism due to an enlarged prostate, but refuses to submit to any other operation. That is, he will not submit to a cutting operation, but will submit to this. I believe it is our duty to do the best we can for these patients under all circumstances, and if this operation is the only one the patient will allow, we are justified in giving him the benefit of it, even though we know it is not the best operation for him, but are satisfied that it will ameliorate his suffering and bring to him a certain measure of relief. The Bottini method has another disadvantage. The instrument is very expensive, costing sixty dollars, besides the battery, which costs twenty more. The battery is heavy, weighing from seventy-five to one hundred pounds. Hence, it is not easily portable, and can not well be taken to the patient's home for use; and as it is indicated in a rather small per cent of cases, surgeons do not as a rule provide themselves with the outfit.

4625 Greenwood Avenue.

Enclosed find one dollar for the MEDICAL BRIEF. I have been a subscriber for many years and will continue to be as long as I continue in practice.—W. H. MCCONNELL, M. D., Brimfield, Ohio.

[Written for the MEDICAL BRIEF.]

The Secret of Health and Its Possession.

BY AXEL EMIL GIBSON, M. D.,
Los Angeles, Cal.

(Continued from page 736.)

The Basis for Good Health.—The philosophy and art of health find their practical application in a true, natural life. Nature enlists with unerring safety her noblest forces in the service of the true and useful, and while implacable and death-dealing in her action against the breakers of her laws, she becomes a protective and loving parent to those who obey her statutes and promote her aims. Fighting a disease on its own ground and with its own weapons implies the same principles as attempting to expel darkness by striking it with a club—a merely negative and futile measure—as such a fight involves an attitude of defiance of Nature in the efforts of the latter to reestablish a disturbed equilibrium, while, on the other hand, a resolute compliance with the laws of health, regardless of results and conditions, places the individual in a positive relation to life and its harmonious, constructive unfoldment. From studying the laws of death, and becoming palsied by its terrors, let the sick and suffering turn their attention and energy to the laws of life with its possibilities of health and joy. Let him eat rightly, breathe rightly, and think rightly, and his re-installment in the order of a progressive evolution will be as resistless as the revival of spring follows the breaking up of winter.

The Different Schools of Healing and Their Claims—the Fallacy of Electricity.—Comprehending existence as the expression of an ever-moving vital force, sweeping through and energizing the various forms and substances of evolution, it follows that this force—homogeneous and changeless—receives its protean appearance from the ever-shifting substances and organisms through which it acts.

This gives rise to the three primary modes of relation existing between the life-current and the forms through which it operates, viz., the normal, the supernormal and the sub-normal order of existence. To the first order we refer all modes of existence which sanely and harmoniously respond to the evolutionary impulse; in the second we include conditions which by a superinduced sensitiveness respond too vividly to this impulse; while the last-mentioned class of activity which through a lessening of natural vigor respond too slowly to the evolutionary stimuli. The first condition manifests in physiological balance—health; the second in congestion, fevers, inflammations, etc., and the third in atony, debility, paralysis and dissolution.

Now, the avowed object of any school of healing is to equalize the abnormal conditions by subduing the super-normal and stimulating the sub-normal life-processes. But while the aims of the very schools are identical, the methods and principles employed by them differ widely. The schools of drug medication base their system on the theory that the phenomenon of disease has its explanation in lack or absence of vital stimuli, and that the drug, by letting loose in the system highly charged carriers of vital dynamics, supplies this want. Even granted, however, that the relations between a deranged function and the corresponding drug could be controlled, and the special want of vitality in the function thus be adequately met, the question still remains, whether an organism losing its vital power through some structural break-down, has yet the power to assimilate and organize substances purporting to be carriers of new supplies of this power. For the great majority of diseases, so far from being caused by a lack of vital supply, are rather caused by a super-abundance of this supply.

Now, if this be so, then evidently the incongruity back of the disease is not to be traced in the presence or absence of certain vital elements, but rather in abnormal changes in the function itself. And as in our social industries, a supply, if not solicited by a preceding demand, gives rise to a congestion in the market, so a supply, forced upon a bodily function without the latter having first evinced a corresponding demand, *i. e.*, power of response, results in functional congestion with subsequent general metabolic disorders.

Hence, as a stimulating agent, medicine must be paid for in terms of depressor-effects, manifesting through devitalizing reactions. In this respect the action of medicine upon the bodily functions is very much the same as the therapeutic action of electricity, as in either case the stimulation comes from without in terms of mechanics, rather than from within in terms of dynamics. For it must ever be remembered that the establishment of true and permanent health is possible only by preparing conditions whereby life may be introduced and made to act by its own spontaneous power.

Now electricity, being unable to find the subtle tracks of nerve-connections on which the vital principle moves as organized constructive power, proceeds rudely and at random to push the side-tracked human engine across the structural and physiological obstacles which may be blocking its unguided path of action.

For electricity is a mechanic force, and can not more substitute life in the animal organism than it can substitute the intelligence by which it is charged and operated. The function of electricity as a therapeutic factor, is to serve as a vehicle for the vital messages dispatched from the psychic centers of the cerebral cortex, per *medulla oblongata*, to every physiological or functional center of the organism. Hence, simply to charge an organism with electricity is principally the same as to send off a carrier without instructing him with a message. Sweeping along or across the involved nerve-paths in currents of vitally unemployed force, the electric discharges may succeed in arousing promiscuous action in the system, but being without the power of eliciting any purposive, intelligent results, are naturally unaccompanied by any permanent, constructive, self-sustaining health.

For it must never be forgotten that the value of any therapeutic agent is limited to its power of preparing conditions for an unobstructed and tranquil flow of life from center to circumference, and from circumference back to the center. To generate life, *per se*, is impossible, hence any stimulant, introduced into the system, will be found to exhibit the same mode of action, and accompanied by the same result, as the whip applied to the back of a tired-out horse; the strain of an already decimated vitality urged to yield new efforts without a corresponding re-enforcement of the waning functional and structural powers. And this, again, will go to show that the only reliable course of therapy is found in the introduction of conditions favorable to a spontaneous assimilation and elimination. Conditions of this character are principally brought about by freeing Nature from the weights and shackles of waste products by adopting hygienic measures such as physical culture, breathing exercises, out-of-door life, and, above all, a sane diet.

Science of Diet, the Science of Life—A Moral Factor.—For the science of diet is the science of life. With the exception of an advanced structural breakdown and subsequent functional insufficiency, there is no physical ailment which is not amenable to diet when applied as a corrective. This power of a scientific diet to work miracles is due to the fact that back of most functional disorders stands the specter of an outraged stomach. And as Nature knows of no royal road to health, and furthermore, as action and reaction are equal, it becomes a mere matter of logical inference that a return to health must qualitatively proceed through a series of physiological incidents corresponding to the original points of departure, a process resembling the attempt of reëstablishing a disturbed balance, when weights must be added to or taken away from the unequal arms in exact correspondence to the extent of the original displacement. And as any violation of the laws of health means a rupture of a physiological equilibrium, with the subsequent disturbed balance of health, so the restoration of the latter means to render up a sum of dietary restrictions equal to the sum of previous over-indulgences which originally caused the disease.

Thus, at the root of every self-imposed disease is found a moral element—the inexorable sway of retributive justice with its relentless necessity of self-mastery and self-conquest. No disease can be thoroughly cured without the individual's moral nature has received a corresponding improvement. *Mens sane in corpore sane*, is a statement not less true if taken in its reversed sense. To enjoy a thor-

ough health, the mind not less than the body must be sane and balanced in its functionings. Yet there should be a motive in possessing health outside of the mere power of attainment. To subject ourselves to denials and restrictions in diet, and employ decency in our general modes of living for the mere sake of getting on the best side of mother Nature with a view of being paid off in terms of health, does not involve a betterment of our moral nature for its own sake, and is, therefore, incapable of giving birth to the harmony which is conditional to permanent health. For the motive in this case would be wholly selfish, and Nature's services can not be permanently enlisted for the furtherance of selfish aims. Health is a form of wealth, and the struggle for its possession may involve springs of motive, not less selfish and unworthy than those which may lie back of the pursuit of less valuable treasures. Health for health's sake differ in no principle way from the motive involved in wealth for wealth's sake, or art for art's sake. In either case the attainment aims only at self-enjoyment.

Usefulness, the Greatest Medicine.—What gives force and permanence to health lies in the universality of its motive. Health for life's sake; health for the increased usefulness to the world and humanity, which such attainments entails. Health culture in any form is morally legitimate only to the extent its practices aim at an increased power of usefulness and service. Desiring health for health's sake is not more rational than to build houses and edifices without connecting them with any principle of usefulness for prospective occupants.

In the successful pursuit of health, the question of usefulness enters as an indispensable factor. An hour of useful, purposive work, involving muscular exertion, such as lawn-mowing, wood-chopping, sawing, shoveling, etc., is of more vital value to the individual than several hours spent in the indoor gymnasium or athletics. Usefulness, purposiveness, helpfulness and general service furnish the keynote to the harmony and moral equipoise which forms the basis of all real health, strength and beauty, in human, no less than in universal nature.

The Practice of Medicine Based on the Principle of Vicarious Atonement.—The origin of the influence which the practice of drugs exerts over the mind can be traced to the insiduous promises it holds out of being able to confer upon the individual a power of wrenching unearned benefits from Nature. Back of it lies the old, vicious idea of sinning on grace, of shirking dues, while relying on the mystery of a vicarious atonement to help the transgressor out of his self-imposed difficulties. The hope of final triumph over disease is bound up with the realization by each individual of the fact that action and reaction are equal and uninterruptible, and that a cause can not be removed without tracing back and cancelling, step by step, link after link in the vital chain of effects, the incidents connecting the actor with his acts.

The Necessity of a Knowledge of Dietetics to Insure the Individual Against the Artifice of Modern Cookery.—Metaphysical and moral postulates so far in any way from interfering with, or substituting a practical application of individual hygiene to the elementary conditions back of health, become a positive aid in this respect. Thus, a scientific study of the laws of dietetics is indispensable with the maintenance of a physiological equilibrium. And while it is true that the robust health of the savage, who is ignorant about the physiological chemistry of foodstuffs, seems to disprove the necessity of such a study for the average man, it must, on the other hand, be borne in mind that the savage has the guidance of a natural instinct, which the civilized man has not. Hence the savage, yet in the possession of a palate vitally responsive to the unerring impulses of Nature's health-life, has a comparatively easy task in selecting a bill of fare corresponding to the vegetative needs of his nature; while the civilized man, suffering under the difficulty of having to depend for his judgment on a palate rendered utterly unreliable under the influence of a cookery which caters to sensual enjoyments rather than to functional needs, is constantly bewildered by the deceptive representations of an overwrought and almost suicidal appetite. To obtain a permanent health and vigor of the body it is necessary to know what

elements are needed, or not needed, for effecting a physiological balance in our daily existence.

A Bit of Physiological Chemistry.—As is generally known, the elements necessary for vegetative life are brought into our body economy under the three primary forms of foodstuffs: Proteids (albumin), carbohydrates (sugar-starch), hydro-carbon (fats), of which the first mentioned furnishes the muscles, the second the fats, and the third the heat, with their respective fields of usefulness; the first in the construction and repair of the body machinery, the second in the protection of its tissues from cold, contusions and friction, the third in the generating of heat and energy for general locomotion.

The extraction and assimilation of these elements from the various foodstuffs require the action of specific organs and functions in the system. Thus, the starch is extracted and digested in the mouth through the dissolving action of a ferment (ptyalin) found in the saliva, and furnished by the parotid glands. The proteids are extracted in the stomach, under the combined influence of the two ingredients of the gastric juice—pepsin and hydrochloric acid—while the fat, when reaching the small intestine, is turned into an emulsion preparatory to the final lacteal absorption.

In this connection it must be noticed that each one of these digestive ferments is specific in its kind, and can only act on a definite foodstuff. Thus, pepsin and hydrochloric acid (the gastric juice) have no power to affect either fats or starch, while ptyalin (the salivary juice) is inadequate to digest any other substance than starch, and so on. Hence it is evident that a foodstuff escaping the action of its specific ferment is largely lost to the body-economy, save through the promiscuous digestion which under the strain or expediency is carried on in the small intestines.

Why Fried Foodstuffs Are Injurious.—A careful consideration of these facts will teach us invaluable lessons in mastication and sanitary cookery. For it is evident that a substance, soluble only in saliva, can be digested only when such a solvent is secreted, the mouth; while on the other hand a certain phase of cookery—frying—by imprisoning the starch or proteid molecule in a capsule of fat, brings about a similar condition of indigestion. The distress which most people with weak stomachs experience after having eaten fried meats is due to the specific action of the various digestive ferments. For as it is first after the foodstuffs have entered the small intestine that they come under the action of the pancreatic juice, which holds the only fat-splitting solvent in the body, it follows that the encapsulated starch or proteid foodstuffs are partly lost to the assimilation, notwithstanding the tremendous expenditure of energy and secretive fluid involved in the futile efforts of the stomach to digest its impossible contents. Engineered on a basis of mechanic leverages, the gastric action continues as long as its contents resists reduction into a homogeneous and friction free pulp (pepton), conditional for absorption. For as the encapsulated foodstuffs refuse to yield to the gastric elaboration, it follows that the grinding action of the stomach continues until its available energy is exhausted, and the labor from sheer functional exhaustion is brought to a close.

(To be continued.)

[Written for the MEDICAL BRIEF.]

Intestinal Surgery.

BY DRS. PENNEBAKER AND TRIPP,
Pleasant Hill, Ky.

(Continued from page 745).

Intestinal anastomosis is done for two classes of cases, *i. e.*, acute and chronic. In the latter, patients are prepared for weeks before the operation, and hence time is not so much a matter to be considered as when emergency is the moving indication.

Distinction is made between primary and secondary resection of the enteron. The former is made for gangrene, the latter for artificial anus. In a resection, when a greater portion of bowel is removed from the mesenteric side than from the distalward part, the distension and paralysis of the tube which follows is due to interference with the vascular supply.

It is not necessary to resect a triangular piece of mesentery, and it is inadvisable to sew together the edges of the rent

in the mesentery, as it might include the vessels. Resection of the bowel is required for three classes of cases, *i. e.*, strangulated hernia, ileus, and intestinal perforation. There is considerable mortality aside from the pathology in the treatment of these conditions. Good results are attained through early diagnosis and operation when intestinal obstruction has been positively excluded.

The rupturing strength of the bowel under pressure shows that the mucous membrane offers very little support, as it became torn during the distention. It is necessary that the muscular and serous coats be united at the seat of approximation to secure proper strength of the enteron. The sub-mucous coat can be torn under considerable less pressure; hence the Lembert suture should be inserted transversely to the longitudinal axis of the enteron and should embrace the mucosa.

The differentiation of the stomach end of the divided intestine may be made as follows: Grasp the divided ends of the enteron and hold them as if the operator held a simple undivided loop of intestine, so that the divided ends of the mesentery look dextrad and sinistrad. Then place the finger in contact with the mesentery, using it as a guide to determine if the finger remains all the time upon the side on which first placed; if so, up is cephalad and down is caudad. If the finger starts in on one side and crosses to the opposite side of the abdomen and mesentery, then there is a half-twist in the loop and what is held as the end cephalward is the rectal or side distalward of the divided enteron. If the tracing finger leaves the side on which it started, passes across the meson and returns to the side where started, there is a complete volvulus, and the direction of the twist and its extent is readily determined.

In making a circular suture of the resected enteron, unless pre-sectional stitches are introduced before dividing the viscus, it is impossible to preserve a straight line in the closure. Every suture should include a bit of the sub-mucous tissue; these three or four pre-sectional stitches tend to prevent eversion of the mucous membrane. The first pre-sectional ligature is inserted at the mesenteric border of the enteron, at a point as free from adipose tissue as possible. When the segments of the resected bowel are of unequal size, one end is closed by suture and the other end is implanted in a slit made into the long axis of the intestinal tube.

Two methods of uniting the resected intestine are employed, *i. e.*, the end to end union, or lateral anastomosis, the divided enteron being closed by sutures, and the mechanical approximation of the segments, this being attained by special devices. It may be formulated, if we wish to repair the intestine we select mechanical means; the method by suture has always held its own, but requires a certain familiarity with its technique. Argument is in favor of mechanical methods, in time saved in sewing. First among mechanical devices is the Murphy button, though its position is likely to be superseded by the so-called anastomosis ring, which promises more for safety and results. The Murphy button is so made that it will accommodate itself to varying degrees of thickness of tissue and make uniform pressure. This explains why the pressure at the mesenteric junction, where there is greater thickness, is uniform. The field of the button is a limited one, and it will be mostly used in connection with operations upon the gall bladder, and in the end to end anastomosis of the intestinal canal.

It is objected that it does not secure a permanent opening in the enteron of sufficient caliber, and this is a fatal insufficiency. In one case, symptoms of obstruction supervened, the opening becoming plugged with hardened feces; here it might be conceived that enterotomy might have relieved the condition. It further may be surmised that tissue necrosis might become more extensive than desired; experience, however, does not confirm this as occurring frequently. Death has occurred from gangrene at the site of the button; in another instance the button was found in the proximal side of the anastomosis at autopsy.

In two cases of gastro-enterostomy the button was found after death in the stomach.

With the button end to end, anastomosis is fifty per centum safer than lateral anastomosis.

Prof. Ludwig reports the condition of the various coats of the intestine thirty days after the use of this device. "The line of union, almost linear in thickness, could be traced by a very small but distinct cicatrix; the various layers appeared to be in perfect juxtaposition, the longitudinal being almost restored, and with the exception of the mucosa the coats were completely united by connective tissue. The mucosa had undergone degeneration."

If the button does not pass in three or four weeks the rectum should be examined, as it may rest just inside of the sphincter. The occlusion of the button by fecal impaction can be easily avoided by cathartics immediately after the operation. Primary adhesions may be hastened in malignant cases by abrading the peritoneum with the scarifier.

As mechanical devices, the bone plates of Senn, and the vegetable plates advocated by Dawbarn, have the advantage of providing a sufficient opening and as being free from the danger of remaining in the proximal side of the anastomosis as a foreign body in the intestine.

Dr. Abbe's cat-gut rings present the advantages of a sufficiently large surface for approximation and at the same time leave an ample opening in the bowel. One case of fatal hemorrhage is reported, caused by the premature liberation of an Abbe's ring, due to its twisting upon itself; the operation was one of gastro-enterostomy.

The mortality of lateral anastomosis is comparatively small when plates or rings are used, and it has been reduced but little by the Murphy button. Patients should receive liquid nourishment as soon as possible after an operation for resection upon the enteron, and alvine evacuations should be frequently secured.

Several special forms of hernia should be discussed in connection with intestinal surgery. Among these, yet to be mentioned, congenital hernia of the umbilical cord form a class of cases that will require early operative procedure. This hernia may contain the enteron alone, the liver and enteron, or the liver only. The coils of the bowel and liver may be seen through the transparent cord. From embryology we learn that from the sixth to the twelfth week of intra-uterine life, the umbilical cord contains a portion of the tractus intestinalis. At this time the umbilical vesicle should atrophy, the bowel recede into the abdominal cavity, the navel ring close and the omphalomesenteric duct become obliterated. Just why the liver has been found here has never been explained; some museum specimens contain the heart as well.

Dr. H. Speier, of Rochester, Minn., expresses himself as follows: "The word congenital includes any morbid change that may take place in the child before it is born. In the creative, or developmental stage, which is completed at the end of the sixth week of intra-uterine life, any malformation of the child which is then present can not be remedied by nature unassisted by artificial means." If the fetus has an umbilical hernia into the cord at that time it will be born with this condition. "In other words, Nature abandons her work after the sixth week, so far as repair is concerned." The prognosis in hernia of the abdominal viscera into the umbilical cord is grave. It is advisable to operate as soon as possible and do the radical operation before adhesions form. Cases are reported as cured by wearing a truss.

Laparotomy was performed upon a female child not an hour old; there was evisceration of the bowel from the duodenum to the sigmoid flexure through a small umbilical opening; the hernia included the mesentery. This had developed in a sac formed in the cord, which would have contained about one and one-half pounds. The abdomen was so contracted from the absence of the enteron therein contained during development that it would not contain the eventrated viscera without enlarging the same. This being done, the intestine was replaced and the wound sutured; the bowels responded to castor oil and a few doses of one-third drop of tincture of opium.

Colotomy is indicated in many cases where excision of the bowel would be impracticable. It relieves the symptoms and retards the growth of neoplasms and prevents obstruction, as well as prolongs life through the relief of pain.

The operation, especially the inguinal, relieves tenesmus and constant discharges

from the rectum, and it prevents the straining and congestion of defecation. The inguinal procedure is preferable in the majority of cases to the lumbar; the incision is smaller, the depth of the wound less and it offers greater facility for abdominal exploration. Further, the position of the patient in making the operation renders anesthesia safer, and it is easier to find the colon and fix it to the skin; this operation of selection forms a better spur, and the site of the artificial anus is more cleanly and the adjustment of a pad is more practicable, and as a matter of greatest importance this operation is less dangerous. By preference the left side is selected, exceptionally the right. The direction of the colon is determined by touching the bowel with sodium chloride, thus exciting reverse peristalsis; the use of sodium carbonate for this purpose is dangerous. A great drawback to inguinal colotomy may be the inability to retain feces; this is not seen in lumbar colotomy. Stenosis or malignant growths affecting the ileo-cecal connections indicate ileo-colotomy.

Gangrenous portions of the enteron necessitate resection, and either direct restoration of the continuity of the bowel or an artificial anus.

Colectomy, made for a malignant growth, provided the meso-colon is slightly or not at all invaded, or the tumor is not too adherent to the neighboring organs, and it be possible to mobilize the tumor and to separate the diseased parts without the abdominal incision, is a possible operation. A stricture of the descending colon of a cancerous nature was excised through an incision made as for left lumbar colotomy. The patient was a lady fifty years of age, suffering from the obstruction for eight weeks. She was very feeble. The bowel was removed in the track of the incision by pulling the strictured segment through the wound; each portion of the bowel, with its two orifices after division, were then attached to the lips of the wound.

In peri-typhilitis, if the patient can withstand shock and peritonitis, the abscess will point as do others near the pelvis. There are occasional collections of matter at this anatomical site that have no relation to the intestinal canal, *i. e.*, psoas-abscess, abscess of the right ovary, the migration of pus from distant points, etc. The mortality in subacute cases is greatest prior to the third day; the generality of peri-typhlitic abscesses originate in the appendix vermiformis.

The extreme surgical practice of the present day is not founded on the invariable gravity of the disease, but on the difficulty, if not impossibility in many instances, of distinguishing when the trouble is grave, or likely to become so.

Abscess of the abdominal wall followed by a fistulous communication with the intestine, may arise from stercoral ulcers, eventuating in abscess. These cases were not uncommon, but were always fatal (Dr. C. K. Briddon). It is a prevailing opinion that such troubles are not infrequent among the colored people.

There is one other form of abdominal cavity abscess that largely owes its etiology to intestinal disease, *i. e.*, sub-phrenic abscess.

In sixty cases almost half followed appendicitis; of one hundred and twenty-nine cases, twenty-three were subsequent to appendicitis. Perforation of the diaphragm occurs in twenty-five per cent of such abscesses. The following is the clinical report of a sub-phrenic abscess that developed subsequent to appendicitis: There was great pain and tenderness in the region of the appendix and along the ascending colon. The liver was enlarged and somewhat tender and was likewise displaced downward. The patient lost flesh and concomitantly there was elevation of pulse and temperature. After an operation for appendicitis the local abdominal symptoms continued in a direction cephalad with constitutional expression. Evidence of an abscess pointing at the tip of the left twelfth rib made its appearance; this, on being incised, proved to be a large abscess, which had formed between the diaphragm and liver. The patient recovered. These abscesses may be extra- or intra-peritoneal; pus may burrow cephalad behind the colon, perforate the diaphragm and discharge through a bronchial tube. Pain is a symptom of importance, usually in the region of the liver, with depression of its lower border. Pain in the right shoulder is noted in a number of cases, and hic-

cough is rather a common symptom, due to irritation of the diaphragm. Many of these abscesses contain gas as well as pus.

The treatment is necessarily surgical, operation through the pleura being deprecated unless pus exist in the pleural cavity. Of forty-one cases operated upon through the pleural cavity in fourteen there was an exudate found therein.

The infra-costal incision is considered best, if practicable. If the abscess is located well mesad it may be necessary to drain through the thorax and sew the diaphragm to the costal pleura to avoid infection of the thoracic cavity. The incision should be below the pleura, if possible, so as to strike the abscess directly, if extra-peritoneal, or through adhesions, if time has been sufficient for their formation.

The pleura descends as low as the tenth rib, and by resecting a portion of this rib and pushing away the costal membrane, about two inches of the ninth and even eighth ribs may be resected and the abscess reached without incising the diaphragm.

The mortality of sub-phrenic abscess is forty per cent, fifteen per cent in operative cases and twenty-five per cent in the non-operative.

[Written for the MEDICAL BRIEF.]

A Case of Typhoid Fever.

BY F. MABELLE MURPHY, NURSE,
Baltimore, Maryland.

The following is a report of a case of typhoid fever that was exceptionally interesting to both the doctor and myself:

August 6. Patient a young girl, fourteen years old, tall and slender for her age; had been complaining for several days of tired feeling; was quite sick when the doctor (who was Dr. Geo. Hocking, and who attended case throughout) first saw patient; with temperature 103.5° F.; with most positive signs of typhoid. Four days later, when I went to nurse patient, temperature at noon 105° F., pulse one hundred and thirty. Patient was given cold packs, changing the large bath towels, used for the pack, every few minutes, for half hour to forty minutes, depending on nervous state of patient; followed bath by alcohol rubbing.

Orders.—Heart stimulants, strychnine and digitalin every two hours.

Nourishment.—Liquid, consisting of milk, albumen, chicken broth with well cooked rice and strained, from three ounces to four ounces, every two hours; had great difficulty in giving nourishment to make patient swallow; sometimes would hold in mouth for five or ten minutes, often taking three-fourths to hour to give three ounces. Patient vomited once or twice some of milk; that was about all vomiting during whole of the siege.

Second Week.—Controlled temperature by packs, which this time had to lessen, to great extent, owing to the poor circulation and reaction. The patient now delirious, having up until this time a clear mind; voided urine involuntarily, also stools, bowels moved every day, loose, not too excessive. Temperature, mornings, 101.4° F. to 102° F. Pulse, one hundred and twelve to one hundred and twenty. Temperature, evenings, 103.8° F. to 104.8° F. Pulse, one hundred and twenty-four to one hundred and thirty; condition running along this line, varying slightly for following seven to twelve days.

By expiration of second week, supposed to be fourteenth day, patient, evening, was very restless, with an anxious expression, temperature running high, 104.2° F.; sponged lightly arms, legs, quieted to some extent but not lowering temperature. There seemed to be nausea, great difficulty to swallow, patient being very weak; saline enema (tepid), pint every four hours, to lower temperature, which lowered about a degree. Patient in state of coma, vigil quite marked for thirty-six hours, eyes following every movement in room, then seemed to quiet and fell asleep; condition slightly improved after sleep of two hours, temperature not quite so high; tongue thickly coated.

Third Week.—About twenty-first day had quiet night, slept well, temperature, three A. M., 101° F. Pulse, one hundred and eighteen; 5:30 A. M., severe hemorrhage without any indication except sight of blood; bleeding stopped when discovered. Pulse now very good, temper-

ature 102.4° F., pulse one hundred and sixteen. Telephoning the conditions to the doctor, was ordered to give one-sixteenth grain morphia, one-six-hundredth grains atropia, hypo. for fear sudden conditions, which would be unfavorable, should arise.

Not until three hours later, nine A. M., temperature 101° F., pulse one hundred and ten, but suddenly, without apparent warning, pulse weakened until imperceptible, whole body trembled very violently, face and finger nails blue, the whole appearance of the patient was death, and that very soon, indicating further hemorrhage. Increased dose of strychnine and digitalin, and used doses of morphia one-sixteenth grain, as indicated. In addition to former orders, an intestinal astringent was given every two hours for two days.

Saline injection subcutaneous, one ounce, repeated in hour. In one and half hours after impending collapse there was violent muscular twitchings, marked cyanosis, temperature axilla 106.8° F., pulse at this time was weak and very irregular; one hour later temperature dropped to 104° F., pulse one hundred and twenty, easily counted, good volume. Could take some crushed ice four hours later, condition not so good, temperature 105.6° F., pulse one hundred and forty. Muscular twitchings, some cyanosis. Emulsions of turpentine in doses of forty-five drops was ordered by Dr. Hocking for every three to four hours. Seven P. M., three hours later, temperature now down to 104.8° F., pulse one hundred and thirty-five; circulation improved.

Five hours later, midnight, temperature 102.2° F., pulse one hundred and twenty-six. At this time patient could swallow crushed ice.

Saturday, received usual nourishment, milk and albumen. The least movement or excitement would cause pulse quickly to ascend, quieted such times with morphia. Bowels not having moved for three days, enema was given; there was some distension of abdomen now. Enema consisted:

℞ Water.....4 ounces.
Glycerine.....2 ounces.
Olive Oil.....2 ounces.

Results, very large formed stool with very little exhaustion to patient.

Following days patient sleeping great deal, only awaken for nourishment and medicine. Fourth day after hemorrhage, temperature from 102.8° to 103.4° F., with pulse one hundred and sixteen to one hundred and twenty-four.

After quiet night patient aroused, although delirious; crying, said had pain in abdomen. Temperature, 4.30 A. M., 102° F.; pulse, one hundred and twenty. Was little restless. Hypo. morphia, one-sixteenth grain, quieted for time. Again she complained of same pain. Soon following this she hiccoughed, and made several attempts to vomit. After this symptom the whole body trembled violently. There was a marked cyanosis, pulse imperceptible, thus indicating a perforation. Heart stimulants in addition to strychnine, digitalin, nitroglycerine, and hypodermics. Brandy was given. Pulse now detectible, but not countable. Noticed there was some response to stimulants.

Saline subcutaneous injections, one pint, repeated in one hour. Patient now pale and lifeless, being in this state for five hours. By three P. M., slight change for better. Orders same as before.

Three saline enemas, each one pint, at interval of four hours. At four P. M., temperature 102° F.; pulse, one hundred and thirty-two. Turpentine emulsion discontinued, and nourishment stopped for twenty-four hours. At eight P. M., bowels moved very good.

Wednesday, day following perforation, the delirium now becoming of violent character, having difficulty to keep patient in bed. In addition to orders, hyos. brom., one one-hundredth grain, was given, as needed. Temperature dropping now gradually. Pulse growing stronger. Temperature, morning, 100° F.; pulse, one hundred and sixteen, but patient is very hysterical, having crying spells. Three days after perforation, nourishment was extended to beef extracts and broths. Four days after perforation diarrhea set in. Proteine was very effectually used in this when needed. Several days temperature rose toward night, but not to go above 102° F. Still very delirious, also hysterical, then followed periods of stupor.

Fourth week, passive congestion base of both lungs. Cotton jacket was applied

with good results. No baths prior to two weeks of this had been given, owing to the very sensitive condition of skin, also a peculiar condition of skin was noticed at this time, simulating in appearance the linea albicantes. It was especially marked over the hips and knees, where the tension was great. Patient was rubbed twice daily with cocoanut oil.

Occasionally would apparently be rational, and showed all signs of convalescing, but her mental condition was pitiable. Hysterical until she sits up, especially at night, continuing until seventh and eighth week.

Hyos. and brom. mixture was used very successfully to control hysteria, and restlessness. All this time the patient had to be watched.

By ninth week, mind was clear, pulse and temperature being normal in morning for three weeks.

Tenth week, down stairs on piazza, able to walk a little. Made full recovery.

1211 East Preston Street.

[Written for the MEDICAL BRIEF.]

Semi-Revolution of the Earth—Evolution of the Brain.

BY SILAS HUBBARD, M. D.,
East Aurora, N. Y.

According to the findings in the last pre-glacial period, as indicated by the works and remains of paleolithic man and his equatorial companions, the old equator must have run through Norway and Sweden and between England and Egypt in latitude (now longitude), down through the center of Africa, lengthwise, and so continued on through Behring straits, between Alaska and Siberia to the place of beginning. All these places were pointing east and west lengthwise either under or near the old equator, or at least under the old torrid zone; but the vast accumulation at one or both of the then poles and arctic regions caused the then poles to come under the sun by the attraction of the sun on the vast accumulation of ice, constituting it the thickest and heaviest part of the earth; and that was the cause of the last glacial period.

The last pre-glacial period found Africa largely under the torrid zone and the last glacial period still left Africa there; and there it continues to be, compelling the human species there to grow black, and always continuing them black; while the other human inhabitants were also originally black, but gradually changed their complexions after many generations after being whirled from the old torrid zone into the boreal and temperate regions by the sudden semi-revolution of the earth, which caused the last glacial period and great floods by the sudden melting of the vast accumulation of ice which was suddenly brought in the now torrid zone by the sudden semi-revolution of the earth.

Some one will ask why the earth did not return to its last pre-glacial position after the ice had melted and the water had become equalized? I will answer that, with the glacial period there were great earthquakes, and the diameter of the earth became greater through the present equator than through the present poles; therefore, by the law of attraction, it is forced to remain in the present position to the sun till the ice again vastly accumulates in the arctic regions, causing the diameter of the earth through the arctic regions to be greater than through the present equator.

I will say that the former northern pole was near what is now the southwest corner of Colombia, S. A., where it joins the Pacific ocean; and the south pole was near the southern extremity of the Malay peninsula. Let geographers and geologists study the former effects of the former arctic regions as indicated by the present appearance of the land and water, which are in and near the former arctic regions, which surely would include the route of the Panama canal, in which are found many boulders of glacial deposit.

I published a short article on the subject of this paper in the MEDICAL BRIEF, Volume XXXI, page 1024, which would further illustrate the subject.

I would like to enquire of anybody who knows, whether the number of the convolutions of the brain are equal in number as to the savage, barbarous and ignorant man and the educated and enlightened man, or does the difference merely consist in the educated and enlightened man possessing greater depth and prominence of the convolutions and more gray matter?

Examination Questions of the University of the State of New York.

Answer any ten of the questions under each heading, but no more. Check the number (✓) of each one of the questions you have answered.

ANATOMY.

TUESDAY—9:15 A. M. TO 12:15 P. M., ONLY.

1. Describe the articular extremities of the humerus.
2. Give a description of the general lymphatic system.
3. Describe as to structure (*a*) a vein, (*b*) a capillary, (*c*) an artery.
4. Give the microscopic appearance of compact bone tissue.
5. Describe the hip joint.
6. State the origin, insertion, action, blood and nerve supply of *one* of the following muscles; masseter, scalenus anticus, erector spinæ, external oblique, tibialis anticus.
7. Describe the circle of Willis.
8. Mention the veins that empty into the inferior vena cava.
9. Give the structure of the spinal cord.
10. Describe the course of the pancreatic duct.
11. What is the pons Varolii, and where is it situated?
12. Give the origin and function of the abducent nerve.
13. Describe the lobes of the liver.
14. Give the anatomy of the nasal duct.
15. Describe (*a*) Poupart's ligament, (*b*) Gimbernat's ligament.

PHYSIOLOGY AND HYGIENE.

TUESDAY—1:15 TO 4:15 P. M., ONLY.

1. Mention the varieties of connective tissue and state the special function of each.
2. Describe (*a*) the animal cell, (*b*) animal cell division.
3. What are the circulating liquids of the body? Give the functions of each.
4. Describe the physiology of hearing with special reference to the functions of (*a*) tympanic membrane and auditory ossicles, (*b*) semicircular canals, (*c*) the Eustachian tube.
5. Describe the nervous and muscular mechanism of (*a*) deglutition, (*b*) vomiting, (*c*) hiccough.
6. Describe the functions of the skin and of its appendages.
7. Mention the products of intestinal digestion and state what disposition is made of these products.
8. State the function or functions of (*a*) bilirubin, (*b*) hemoglobin, (*c*) myosinogen, (*d*) fibrinogen, (*e*) caseinogen.
9. Give the successive steps in the digestion of a meal of roast beef and potatoes.
10. What is the value of alcohol as a food?
11. How long is it advisable to quarantine (*a*) a diphtheritic patient, (*b*) a small-pox patient? Why?
12. Mention the various methods of bathing and state the hygienic rules to be observed in each method.
13. Give a detailed description of a hospital ward for babies and state the hygienic regulations to be enforced in the care of the inmates.
14. What evils arise from outside privy vaults? How may such evils be averted in cases where these vaults can not be supplanted by more modern contrivances?
15. What is the most healthful material to wear next the skin? Why?

CHEMISTRY.

WEDNESDAY—9:15 A. M. TO 12:15 P. M., ONLY.

1. What are salts and how are they formed? Define neutral salt, acid salt, double salt.
2. Mention *five* elements found only in combination. Into what groups are elements divided? Illustrate.
3. Give a method of determining atomic weight by chemical means.
4. Define sublimation, distillation, static electricity, galvanic cell, organic compound.
5. Mention the halogens. Why are they so called? Give the formulas of three compounds, each of which shall contain a different halogen.
6. State the sources of ammonium compounds. Give the composition, the method of preparation and the properties of sal ammoniac.
7. Give a test for (*a*) ferric compounds, (*b*) ferrous compounds. Write the chemical names and the formulas of *three* salts of iron used in medicine.
8. Give the normal specific gravity of urine. State the pathologic and the non-pathologic causes of abnormal deviations in the urinary specific gravity.
9. What is the composition of atmospheric air? Define humidity of the atmosphere, rarity of the atmosphere.
10. What is the chemical antidote for lead acetate poisoning? Explain the chemical action of this antidote.
11. Define electrolysis, ions.
12. What are (*a*) albuminoids, (*b*) proteids? Give examples of each.
13. Give the formula of (*a*) common (ethyl) alcohol, (*b*) sulfuric ether, (*c*) acetic acid.
14. How is nitro-glycerine prepared? State the medicinal uses of nitro-glycerine.
15. Mention *four* alkaloids of opium.

SURGERY.

WEDNESDAY—1:15 TO 4:15 P. M., ONLY.

1. Give the indications for reopening wounds.
2. Describe in detail nitrous oxid anesthesia.
3. Give the various surgical methods of treating epilepsy.
4. Give the symptoms, diagnosis and treatment of fracture of the lower end of the fibula

with avulsion of the internal malleolus (Pott's fracture).

5. What is understood by spontaneous dislocation? Describe a form of spontaneous dislocation.

6. Give the indications for tracheotomy and describe the operation.

7. Give the etiology and treatment of epistaxis.

8. Give the signs and symptoms of popliteal aneurism and indicate the treatment.

9. Give the symptoms and treatment of vesical calculus.

10. What conditions of the kidney require nephrectomy?

11. Describe an operation for the cure of prolapse of the rectum.

12. Give the symptoms and treatment of rupture of the bladder.

13. Give the treatment of contusion of the eyeball and describe the sequels.

14. Give the differential diagnosis of hydrothorax and empyema. Give the treatment of one of these conditions.

15. What are the indications for curetting the uterus? Describe the operation.

OBSTETRICS.

THURSDAY—9:15 A. M. TO 12:15 P. M., ONLY.

1. What are the physiologic processes concerned in the reproduction of the species?

2. Describe the changes that take place in the uterus as the result of pregnancy.

3. Give the causes and treatment of pernicious vomiting in pregnancy.

4. What signs and symptoms, subjective and objective, should be considered in making a diagnosis of pregnancy?

5. Give some general rules for the application of asepsis and antisepsis in the obstetric chamber in private practice.

6. Mention the conditions that justify the induction of abortion (not premature labor). What appropriate means may be employed to induce abortion?

7. Define *accouchement forcé;* state indications for its employment and describe appropriate methods for performing it.

8. Give the diagnosis and management of a brow presentation.

9. Describe the technic employed in the delivery of a retained and adherent placenta.

10. How may an occipito-posterior position influence labor? Give the management of an occipito-posterior position.

11. Mention the indications for version and state methods of performing the operation.

12. What special immediate care should the newborn infant receive? State the diet of the newborn in case lactation has failed.

13. Describe the left lateral position, also known as the semi-prone or Sims' posture, and state its principal gynecologic advantages.

14. Describe the technic of bimanual palpation. State the special purposes of bimanual palpation.

15. State the uses and dangers of the uterine sound and describe the technic of its employment.

PATHOLOGY AND DIAGNOSIS.

THURSDAY—1:15 TO 4:15 P. M., ONLY.

1. What is an embolus? Mention frequent sources of emboli. State the sequels of embolism.

2. Mention the causes of cardiac hypertrophy.

3. Give the pathology of arteriosclerosis.

4. Mention the characteristic bone changes in rachitis.

5. What is the composition of the inflammatory exudates? Describe healing by granulation.

6. Define phlegmon, abscess, ulcer, fistula, furuncle, carbuncle, caries.

7. Describe gangrene and its varieties. What is the line of demarcation in gangrene?

8. What are the secondary heart changes in chronic mitral disease?

9. Mention the syphilitic lesions of the brain and of the spinal cord.

10. Describe leucemia. What pathologic changes occur in leucemia?

11. Give an outline of the structural changes that occur in phthisis pulmonalis.

12. Differentiate intermittent, remittent and continued fever.

13. Give the gross and the microscopic appearance of an epithelioma of the lip.

14. How may pleuritic friction sounds be distinguished from râles occurring in the bronchial tubes?

15. Differentiate cardiac dyspnea, nervous dyspepsia and asthma.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

FRIDAY—9:15 A. M. TO 12:15 P. M., ONLY.

"* * * in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its State board of medical examiners."—Laws of 1893, chapter 661, section 146.

Questions prepared by the board of examiners representing the Eclectic Medical Society of the State of New York.

1. Describe the symptoms and treatment of sciatica.

2. Give the causes and treatment of gout.

3. From what is atropin obtained? Describe the uses of atropin in medicine.

4. How is wine of colchicum seed prepared? Give its therapeutic uses.

5. Give the causes and treatment of tetanus.

6. State from what pepsin is obtained and give its uses in medicine.

7. Describe the therapeutic uses of bismuth subnitrate.

8. Give the therapeutic uses of gelsemium.

9. Give the preparations, the doses and the therapeutic uses of scoparius.

10. Give in detail the treatment of acute capillary bronchitis.

11. Give the therapeutic uses and the physiologic action of veratrum viride.

12. Give the cause, symptoms and treatment of acute coryza.
13. Describe malarial fever and give its treatment.
14. Give the symptoms and treatment of catarrhal jaundice.
15. Describe iritis and give its treatment.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

FRIDAY—9:15 A. M. TO 12:15 P. M., ONLY.

Questions prepared by the board of examiners representing the Medical Society of the State of New York.

1. Give the therapeutic uses of gelsemium.
2. Give the physical signs and the treatment of pericarditis.
3. On what change of castor oil in the intestinal tract does its purgative action depend?
4. Give the therapeutic uses of acetic acid.
5. Give the treatment of diabetes insipidus.
6. Give the physiologic action of podophyllum. Mention the name and state the dose of resin of podophyllum.
7. Give the therapeutic uses of prunus Virginiana.
8. Define anthrax and give its etiology and treatment.
9. What is the proportion of mercury in blue mass? State the dose of blue mass.
10. Define styptics and hemostatics. Mention (*a*) *two* styptics, (*b*) *two* hemostatics.
11. Of what pathologic condition is acute nasal catarrh a symptom? Describe the treatment of acute nasal catarrh.
12. How do tinctures differ from spirits? Give an example of each.
13. Describe the therapeutic uses of iodoform. State the dose of iodoform for internal administration.
14. Mention the sequels of influenza (grip). Give treatment.
15. State the sources and the dose of salicylic acid.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

FRIDAY—9:15 A. M. TO 12:15 P. M., ONLY.

Questions prepared by the board of examiners representing the Homeopathic Medical Society of the State of New York.

1. Differentiate alumina and opium in constipation.
2. Give the homeopathic indications for digitalis in heart diseases.
3. Differentiate cimicifuga and rhus toxicodendron in rheumatism.
4. Differentiate carbo vegetabilis and argentum nitricum in diseases of the stomach.
5. When is viburnum opulus indicated in dysmenorrhea?
6. Give the symptoms and treatment of acute pleurisy.
7. Differentiate belladonna and glonoin in headache.
8. Differentiate esculus hippocastanum and aloe socotrina in hemorrhoids.
9. Give the characteristic respiratory symptoms of ipecac.
10. How should a case of renal colic be treated?
11. Differentiate carbo vegetabilis and muriatic acid in typhoid fever.
12. Give the general characteristics and the therapeutic uses of picric acid.
13. Describe the cough of (*a*) belladonna, (*b*) hyoscyamus, (*c*) rumex crispus.
14. Give the urinary symptoms of cantharis.
15. Describe the treatment of acute gout.

[Written for the MEDICAL BRIEF.]

Cause of Death in Drowning.

BY C. B. KING, M. D.,

Atlanta, Ga.

I want some or all of the many thousands of doctors who read the BRIEF to tell me what is the cause of death in drowning?

Does water ever enter the lungs before drowning or while drowning? Or does it enter the lungs after drowning, or does it ever enter the lungs even after drowning? Does not constriction of the larnyx in Nature's effort to shut out the water to prevent drowning cause death by asphyxiation?

I never made an autopsy after drowning and ask to know from some brother who can tell me if the lungs of a drowned person contain water after death.

512 Austell Building.

Graft.

This is the title of a reprint from the NATIONAL DRUGGIST of St. Louis, and gives in terse terms the full purpose of all "Pure Food and Drug Legislation." After the NATIONAL DRUGGIST shows up the true inwardness in the proposed legislation it proposes a remedy, if such is necessary, by which pure foods and pure drugs can be secured, but not by the lax methods that would prevail if the present prospective laws were to become a fact. It would simply result in what the writer terms a "graft" that would be far-reaching and be a disgrace to our country, and perchance by an investigation be scandalous in its nature. We enter our protest against measures that pretend to be good in their nature and at the same time smack of the elements that would make them obnoxious not only to the average person, but the professional as well.

It is good reading to all who are interested in the facts in the case, and shows up the "nigger in the woodpile."

A. Brothers B.S. M.D.

Adjunct Professor of Gynecology to the New York Post-Graduate Medical School and Hospital; Visiting Gynecologist to Beth-Israel Hospital; Fellow of Academy of Medicine; Member of the County Society, Obstetrical Society, Eastern Medical Society, County Medical Association, Harlem Medical Association, Society Alumni of Bellevue Hospital, Physicians' Mutual Aid Association. New York City.

A. M., M. D., Professor of Gynecology and Clinical Gynecology Miami Medical College; Former President of the American Association of Obstetricians and Gynecologists and the Ohio State Medical Society; Member of the British Gynecological Association; Gynecologist to the Presbyterian Hospital; Member of the American Medical Association; Member of the Academy of Medicine. Cincinnati, Ohio.

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Editorial.

The Good-Natured American.

It is not queer, when you come to think of it, that the continental foreigner speaks of us as the good-natured American, the man easily imposed upon.

The Atlanta *Journal-Record of Medicine* (January, 1905) says: "The German Supreme Court forbids the use of the title 'Doctor' in Germany when granted in the United States."

Stop and think what an insult this is to the American doctor. Suppose we should do the same by the German graduates who come here to compete with us, all Germany would be wild. Let those doctors who are so fond of foreign things consider what an insult is offered to physicians who have received their diplomas in the United States and are consequently debarred legally from using their titles in Germany.

What is the matter with the American brand of science, learning and skill that it should be held in such contempt, and what is the matter with the American doctor that he will stand such treatment?

Not only do we admit German patented preparations, but allow the Continental foreigner to use the American Medical Association and its organ to run down the products of American chemists and praise up those made in Germany. In other words, the American profession is insensibly lending itself to hurt its own prestige and to lessen the esteem in which the products of American chemists are held.

There is no foundation, whatever, for this false and unnatural state of affairs. There are no more skillful doctors and no finer medical preparations anywhere in the world than right here in America when tried by the test of merit.

It is time we understood the foreigner better and made him understand us. The strongest trait in the American character is fairness. The Continental foreigner is quick to grasp at the advantage this gives him, at the same time he regards it as a weakness and has a contempt for us as a consequence. The Continental foreigner is

arrogant, very sure of himself, all virtue begins and ends with him and his.

Now, it is all very well for us to welcome the foreigner from Continental Europe to our shores and to put him on an equal basis with ourselves, but we have got to recognize his state of mind and make him keep his pretensions within bounds.

American humor, common-sense and fairness put us at a decided disadvantage in dealing with a self-important people, eager to seize and make the most of every opportunity to exploit themselves and their country.

The Germans are good people and have their own virtues. We have no prejudices against them, but we must compel them to recognize that we have some rights also, that we are their equals in every respect and insist upon being treated with the same fairness and justice that we show them.

Some of us are to blame in having shown a tendency to echo the Continental foreigner's assertion that his brand of learning and his medicines are the best. Some unthinking Americans have heard this so often they have come to take it for granted without stopping to investigate, and they are fittingly punished with the decision which the narrow provincial German Court throws into their teeth.

Do you consider yourself inferior to a man who has graduated in Germany? If not, why let anyone say so? Why tacitly accept the position of inferiority thus thrust upon us? It is one thing to give the Continental foreigner an equal chance with ourselves and quite another to let ourselves be insulted and decried on every hand.

When it comes to insulting the American doctor and the institution which graduates him, when it comes to running down the products of American chemists and using the *Journal of the American Medical Association* to push those of foreign manufacturers, it looks like it was time to draw the line. What do you think? Haven't we been easy and good-natured long enough?

The American has no superior in any department of life when you come down to facts. The trouble with the American is he does not realize the real greatness of his country. The Editor of this journal has travelled all through Germany, observing closely the people, customs and institutions. They have many good qualities, but are not cosmopolitan, lack the breadth and tolerance so conspicuous in the American's make-up. We shall be doing him a service as well as defending our own people from unjust aspersions, in refusing to be dominated by the Continental foreigner's personality.

For that is what it amounts to. When the American sets out to do a thing he has few equals and no superiors anywhere.

Opportunity.

It is in the nature of things that the selfish man misses many opportunities to get along in the world. The selfish man is so wrapped up in himself that he fails to see the golden opportunities which always come to the unselfish man.

Unselfishness quickens a man's perceptions, makes him considerate, just and fair to all. He is on the alert to do the other man a kindness, consequently he creates for himself an atmosphere of trust and regard wherever he goes, and which is a most valuable business asset. The intellectual powers of the unselfish man are free to observe closely and to engage a problem. He sees and makes the most of a chance which completely escapes the selfish man.

In other words, it is the law of compensation working out in accordance with the old French proverb that we find what we look for. This attitude of mind may be so cultivated that a man can find opportunities for himself and for his friends also. There is no question that Grant owed much of his success to the strong friends he made. It is impossible for any man to succeed without friends, not mere acquaintances, but true friends.

The man who has an optimistic mind is always on the lookout for an opportunity to assist or to benefit somebody. He is well-disposed toward all mankind, and mankind is quick to perceive and reciprocate his sentiments. There is always room and welcome for the optimistic man. He is filled with the forces of organization and progress. He expects and prepares for success. Grumbling, dis-

content, carping criticism and other forces of anarchy are absent from his composition. All his strength is given to building up his legitimate interests and lending a helping hand where he can.

Every step we take in life is governed by its own laws. In finance if we spend less than we earn we accumulate. So, also, if a man is constantly on the lookout not to do another an injustice but welcomes an opportunity to say a good word for him, it gets to be known and helps that man just as the truthful man's reputation is useful to him.

The unselfish man, whose disposition is to believe the best of his fellowmen and to do them a service when he can, often sees the truth of another old proverb exemplified, that it is always the unexpected which happens.

Do not trouble about your enemies; take care of your friends is a maxim which leads to success. Selfishness and unhappiness are inseparably connected; on the same principle unselfishness and success are one and indivisible.

The business man who habitually treats his subordinates well knows what an enormous difference it makes on the profit side of his ledger. Often, indeed, success or failure hinges on this one factor. Cheerful, prosperous, satisfied employes are bound to accomplish more than despondent, unhappy people. Selfishness does not pay as a business proposition.

Beware of the Fanatic.

Several of our best known periodicals entering the home are in the throes of what is contended to be a temperance campaign. These publications carefully study the taste of their readers, and are quick to welcome every hobby and fad that furnishes sensational matter. Spurred on by the sympathy of well-meaning white ribbon enthusiasts, they are devoting a great deal of space to a crusade against patent medicines. The flaring head-lines and melodramatic word-pictures of the effects of using alcoholic drugs have created an almost hysterical demand for immediate governmental action.

Now, we have nothing but praise for the motives which actuate the good ladies of the W. C. T. U., and those whose aid they have enlisted, but suppose we consider the ultimate results of such legislation as has been proposed to remedy the evil. Pressure is being brought on Congress to pass a law requiring every druggist selling proprietary medicines containing alcohol to take out a liquor license. Would this accomplish the desired end of killing the sale of patent nostrums? The law would make no distinctions in favor of those pharmaceuticals, dispensed on physicians' prescriptions only, in the manufacture of which alcohol is used as a necessary solvent. The druggist, therefore, would be compelled to obtain a license or lose the most lucrative part of his business—that of filling prescriptions. Whether he be high-minded enough to discourage self-drugging by refusing to sell patent medicines is evidently a question entirely foreign to the matter in hand.

Should the law become a fact, the druggist will not be blind to the opportunities offered to reimburse himself for the expense of the license, and will likely avail himself of the further privileges conferred. Wonder how the ladies will enjoy having their prescriptions filled at the same counter over which a bottle of whisky is sold the loafer too lazy to walk to the corner saloon? By the way, if the various patent medicines have really become such popular thirst quenchers, the saloon keeper will soon have to stock his shelves with them! Doubtless the over-zealous agitators have not stopped to reflect that the success of this misguided warfare against patent medicines would virtually double the number of saloons, and make it easy for topers to secure their liquor on Sunday in those localities where the saloons are closed on the Sabbath. Beware of the fanatic.

[Written for the MEDICAL BRIEF.]

Convulsions.

BY W. T. MARRS, M. D.,
Jewett, Ill.

If everything else has been tried, even chloroform, do not forget the quick manner in which an hypodermic of apomorphine relaxes nerve tension. Dose, for adults, one-twentieth to one-tenth grain; children, one-fortieth to one-thirtieth grain.

[Written for the MEDICAL BRIEF.]

A Little True Story Illustrative of the Reversed Relation of Specialist and General Practitioner.

BY R. C. ATKINSON, M. D.,

Professor of Diseases of Children in the Marion-Sims-Beaumont Medical College.
St. Louis, Mo.

Before a man leaves the general practice of medicine for a specialty, he should be sufficiently skilled in diagnosis to enable him to recognize the exanthema so easily as not to confuse it with either the eruption of blood poisoning or any possible effect of diphtheria, yet some years ago I was called for by a father who had employed a throat and lung specialist to treat a case of diphtheria in his family, of which family I was the physician. The father asked me to go at once—that explanation would be made later, and conducted me to the door and into the carriage of this specialist, who would explain matters to me. The explanation of the specialist was this: "I found she had diphtheria, and I put her on very large doses of the tincture of the muriate of iron. Within twenty-four hours she broke out with a peculiar eruption and she grew worse rapidly; her respiration seemed to be very much affected, and I told the family when I saw the child this afternoon that we must have her family physician to see her with me, as she was in great danger."

On arriving at the house I found great alarm manifested by every member of the family; two trained nurses were present. The mother said to me: "Oh, doctor, will my child die?" I said, "I do not know, madam, I have not seen her. If she has diphtheria she is in danger." I went to the bedside with the doctor at one elbow and the mother at the other. I found a case of measles, and the following were the symptoms manifested. Catarrh of the eyes and nose, a hoarse cough, the features swollen, and a red, raspberry-colored eruption on the face, collected in crescentic groups. That was before the day of the discovery of the "Koplik spots," which will be observed in many cases as much as seventy-eight hours before the recognition of the eruption on the face. They are found in the mucous membrane of the mouth, on a line with the molars on either side of the mouth.

I have never, in a practice of thirty odd years, seen a case of diphtheria which in any respect resembled this case. There were present all of the catarrhal symptoms which are characteristic of measles, and without which I have never seen a case of measles to occur. There was a deep, hoarse cough that always accompanies measles; there was an eruption of the skin characterized by the peculiar clustering and colored as I have described. There was a temperature. All of these symptoms had been preceded by three days of malaise, during which the child appeared ill, complained of soreness of the throat and had incipient catarrh of the eyes, nose and larynx.

On examining the throat of the child I found absolutely no membrane, and I can not conceive of a case of diphtheria of the throat in which there is no membrane, and although I have read and heard of the eruptions produced upon the skin by excessive doses of iron, never having seen a case I fancy the eruption would be more of a purpuric character than of the elevated nature of the measles eruption. And I can not conceive of a case of diphtheria so well defined as to be recognized by the attending physician that could have disappeared within twenty-four hours, after the administration of large doses of muriate of iron. Suffice it to say that the conclusion of this little over-true tale is this: That at ten o'clock the next morning, the eruption having moderated, the child was infinitely better, sitting up in bed and playing with her toys. The specialist failed to meet the general practitioner, as per promise next day, having made his call an hour earlier and disappeared. The child recovered in a few days, contracted diphtheria two years afterward and died of a most malignant attack, which disease the general practitioner thinks the child never had before. During the treatment of the case of measles, there was no medicine used, except whisky as a stimulant for the purpose of thoroughly bringing out the eruption.

Lafayette and Pennsylvania Avenues.

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[Written for the MEDICAL BRIEF.]

Finger Prints.

BY JOHN GEO. GARSON, M. D.,

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A cursory glance at the skin of the palmar surface of the hand at once reveals the fact that there exists upon it two well defined kinds of markings.

On the palm and opposite each of the several joints of the fingers and thumb is situated a series of lines which have been conveniently termed crease lines. They mark the folding or crumpling of the skin, which is produced as a result of flexure movements of the hand, such as those of grasping. The best marked of these lines run generally more or less transversely and obliquely on the palm, longitudinally and obliquely on the ball of the thumb, and transversely on the digits. Subject to slight variation they are constant in appearance and position and are closely correlated with the movements of the joints. There are also other crease lines, less conspicuous in appearance, distributed over the palm and the palmar surface of the digits, which run in various directions, but do not appear to be directly correlated with joint-movements, or even to possess any marked degree of constancy. As old age advances and the skin of the hand becomes loose and crumpled in consequence of wasting of the subcutaneous tissues, they have a tendency to increase in number and to make their appearance in places where formerly they did not exist, particularly in persons who do but little manual labor.

The second kind of markings consist of a series of alternating ridges and furrows distributed over the whole palmar surface. They are much more numerous than the crease lines, though much less conspicuous; indeed, on certain parts of the hand they are so faintly marked as to render the use of a magnifying glass necessary to distinguish them. On the margin of the palm from the wrist to the little finger, on the eminences at the base of the digits, and on the terminal phalanges of the digits they are much better developed and impart a perceptible roughness to the skin of these parts. The height and width of the ridges and the depth and breadth of the furrows not only vary considerably on different portions of the hand, but also on the same parts of it in different persons. The number of ridges and furrows on a given area likewise varies considerably. This, together with variation in size, gives a distinctive appearance of fineness and coarseness to them in different persons. They are, as a rule, finer in women than in men, and

in children than in adults. In the latter they are best developed on the hands of persons who do a moderate amount of manual labor, and become less marked when the skin is thin and delicate, as in persons who do no manual work or protect their hands by always wearing gloves. They also become less marked by reason of pressure or wear on the hands of persons who have excessive manual labor to do and who have to handle bricks, lime and other substances, while that kind of employment is continued, but after it ceases they soon regain their natural condition, provided the skin has not been permanently injured.

The general direction in which the ridges and furrows run on the palm is sometimes transverse and sometimes oblique in long, wavy lines, but their continuity is often broken and frequently intersected by the crease lines, to which they bear no definite relationship. At the roots of the fingers these long, wavy lines are usually displaced and contorted by other systems of ridges and furrows being interposed, which run in different directions and form more or less definite patterns. On the digits the disposition of the ridges and furrows is transverse, or nearly so, except on the terminal phalanges, where the arrangement is very varied and generally more than one system of ridges occurs; here they are also grouped in such a manner as to form well marked patterns.

These ridges, which are not only to be found on the palmar surface of the hand, but also on the plantar aspect of the foot of both men and apes, are termed papillary ridges, from the relation they bear to the papillæ of the corium, which are arranged in serial rows underneath them. According to Kollmann each papilla has a body and two heads; the latter form the adjacent sides of two parallel ridges, while the intervening furrow corresponds with the cleft between the heads of the papilla. Outside each head is the duct of the sweat gland, which opens on the free surface at the apex of the ridge, while the distal side of each of the two ridges is formed by the adjacent heads of the next two papillæ. By taking the capital letter Y to represent a papilla with its body and two heads, and the letter I to indicate the sudoriferous ducts, a transverse section of the groundwork of two ridges, their sweat ducts, and the adjacent side of the next ridge on either side of them may be diagramatically represented thus, YIYIY. The completed ridges would be represented by a complex structural layer placed above and dipping down between the heads of the Y's but pierced by the I's, representing from below upwards the stratum Malpigii, stratum lucidum, and stratum corneum. The numerical distribution of the touch-bodies situated in the papillæ does not seem to be correlated directly with the degree of development or the fineness or coarseness of the ridges, because the former vary in number in localities where the latter are equally well marked. There is little doubt, however, that the ridges are intimately connected with and assist the sense of touch, though their precise relationship with it may be a matter of some speculation. The touch-bodies being situated chiefly in the heads of the papillæ which project into the structure of the ridges, are thus prominently raised on the surface of the skin. They are consequently favorably situated for receiving impressions from objects touched or handled, not only by reason of their coming into contact with them, but also by the surface-area from which the impressions are conveyed to them being materially increased by the corrugations. Furthermore, the contact pressure between the skin of the finger and the object touched being greatest on the summits of the ridges and diminishing as the bottoms of the furrows are reached, a differential sensation is thereby produced which can not but be of immense value in increasing the perceptive and discriminating powers of the fingers with respect to the character of the objects touched. While the structure of the layers of the skin superficial to the papillæ and the ready response which the outermost of these make in becoming thicker and thinner, as well as harder and softer, according to the nature of the employment of the individual, affords the degree of protection to the sensitive organs underneath that is necessary under the varying external conditions to which the fingers are subject, and is of such a character as to admirably adapt it for collecting and transmitting sensations to them and ultimately

to the more distant nerve centres. In this connection also the subcutaneous tissues, consisting of fibrous trabeculæ crossing and interlacing in a complex manner and including more or less continuous lobules of fat constituting the stratum adiposum, which in the living body is a semi-fluid condition, play an important part by equalizing in all directions pressure of contact with outside substances and so favoring the perception of the stimuli thus produced by the nerve terminations. The ridges themselves discharge an important function relative to the act of grasping from the amount of friction they cause, and in this respect the roughness of the surface due to their presence is augmented by the fact that they raise the openings of the sweat-glands to a suitable height from which moisture can be distributed evenly to the surface of the skin and to that of the object grasped. On their efficacy in this connection may depend the directions and arrangement they assume in different parts of the hand as well as in the foot, but on the terminal phalanx the development of the nail has a considerable influence in elongating the form of the soft parts and in modifying their direction, particularly at the free extremity of the digit. Whether the patterns they assumed on the centre of the terminal phalanges are related in any way to the form of the eminences which exists there, appears uncertain, and still less can it be accepted that they are produced through lateral pressure between nascent structures.

The disposition and characters of the ridges and furrows may be studied by direct examination of the fingers, but it is much more convenient to do so from impressions of them taken on some suitable material. Model impressions may be taken on wax or collodion, which are very sharp and delicate, but for practical purposes impressions made on paper from fingers previously covered lightly with a thin layer of printer's ink are by far the most convenient and useful. By this method impressions which are permanent without further treatment can be quickly and easily made. This is therefore the plan usually adopted. But to get good impressions in this way a certain modicum of care and practice is needed. From the fact that the skin has always upon its surface a certain amount of greasy excretion, the finger, when pressed upon a sheet of paper or other smooth surface, leaves behind it a portion of the excretion. If the finger be clean no mark of it will be visible to the naked eye, but a latent impression is nevertheless present, which can be readily developed by applying to it an impalpable powder, such as finely powdered plumbago or *hydrargyrum cum creta* (according as the surface bearing the latent impression is white or dark), which when moved over the impression will leave adhering to it a sufficient amount of this powder to make the ridges appear quite distinct, while the furrows are unaffected. The print will not be permanent unless subsequently fixed, but will be liable to be rubbed off or blurred by contact with other surfaces. This method has its uses, however, and does not entail any previous application of ink to the fingers to dirty them.

The apparatus required for ink impressions consists of a smooth plate of metal, glass, or porcelain, of about the size of a post-card; some printer's ink, of somewhat thinner consistency than is used by printers, which for convenience may be put in a collapsible tube, like that as artists' colors are treated; some sheets of white paper having a smooth, hard surface, and a roller such as is used by photographers and known as a squeegee, with which to distribute the ink on the plate. For the examination of the prints an ordinary reading glass, as well as a lens of about five cm. focal length, and on two needles mounted in handles, like those used in histological work, to serve as printers, are necessary. The various articles enumerated should be kept scrupulously clean and free from dust.

The following is the modus operandi of taking the impressions of the fingers: A small quantity of ink is put on the plate and thoroughly rolled with the squeegee till the whole surface is equally covered with a thin layer. The fingers, having been previously washed and partially dried, are each rolled on the inked plate and then on the paper with the least possible pressure. In applying the fingers both to the plate and to the paper care should be taken to roll it from radial side of the nail over the pulp to the ulnar

side of the nail, so that the complete impression of the ridges of the whole of the terminal phalanx from one side to the other and from the transverse crease lines of the last joint to almost the end of the digit may be obtained. No halt must be made during the process of rolling the finger and it must not be permitted to slip, otherwise an imperfect or blurred impression will be the result. If the impression be not satisfactory the whole of the ink should be washed off the finger with benzine, and the process repeated. A good impression should show the ridges as black lines and the furrows as white spaces between them, clearly and sharply defined. If the lines representing the ridges are faint in color there has been too little ink on the plate; if, on the other hand, the lines are dark enough but the interspaces are not white and clear of ink, too heavy pressure has been put on the digit whilst rolling it, or there has been too much ink on the plate. It is essential that the furrows should be free from ink and only the tops of the ridges inked to get clear impressions. Having secured the impressions of the digits of a few persons it will be found on examining them that the arrangement of the ridges on the different fingers is subject to considerable variation in form and direction. Immediately above the crease-lines the ridges run transversely across the phalanx, while at its extremity they are curved in the form of an arch. On the central portion of the phalanx it may be found in some instances that they pass gradually from the transverse to the arched form, but in by far the larger number of cases they will be seen to assume several distinctive patterns. To this central part of the impression the greatest importance attaches, and in studying it particular attention must be given to the arrangement of the ridges forming it. The first one to systematically describe and classify the various patterns which occur on this portion of the digit was Purkenje in 1823, who divided them into nine different classes. Some subsequent writers have increased the number, while others have reduced them. It is now generally recognized that there exists three main types to which the different arrangements of the ridges met with conform generally, but there are several varieties of each type, and a few patterns are constituted by a combination of two types, or are of a nondescript form. A fourfold division with certain subdivisions is therefore found to afford a sufficient classification for practical purposes. The several dispositions of the ridges are accordingly classified as Arches, Loops, Whorls and Composites.

The Arch is the simplest and most primitive arrangement of ridge met with. Fig. 1. It is formed by the ridges immediately beyond the crease-line of the last joint, which run in nearly straight lines across the phalanx, being succeeded by others which by degrees become more and more curved in the middle, till at last they assume the form of well-shaped arches, and as such the series is continued till the nail is reached. The degree of arching of the ridges and the progressive rapidity with which it occurs, varies in different fingers, but in no case do any of the ridges in their course from one side of the fingers to the other become twisted or turned. Fig. 1 is an example of an arch of ordinary form.

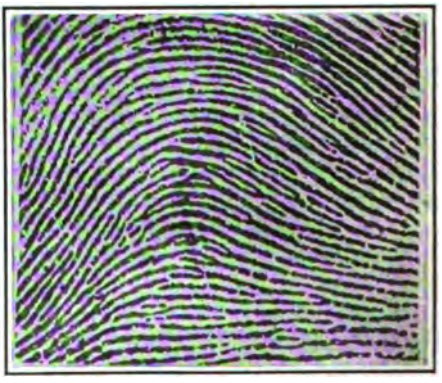

Fig. 1.

There is one variety of this type which is called the Tented-Arch. In it the more or less transverse ridges beyond the crease-lines are succeeded by one or more ridges, which suddenly become thrust upwards at an acute angle from the middle of the base of the arch, which causes the ridge immediately beyond to assume a tent-like shape. The upthrust ridges are not generally symmetrical, however, so that the arrangement has often a somewhat slanting appearance, which in some instances may make it look like a loop,

from which it is distinguished by the circumstance that none of the ridges recurve or double back again. Fig. 2 is an example of a Tented Arch.

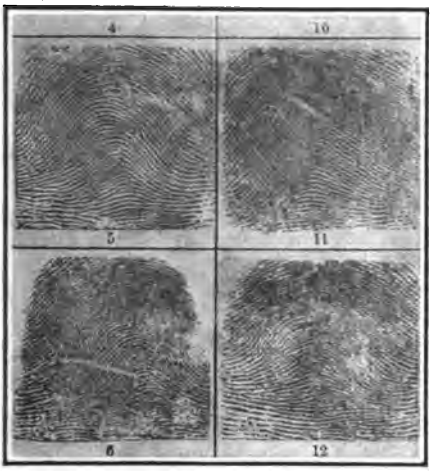

Fig. 1a.

The Loop, Fig. 3, diagramatic, is the most common form of arrangement the ridges assume. The gradual transition of the ridges near the joint from the almost straight to the arched form which was found to obtain in the Arches, fails to be carried out, and a break occurs in the regular sequence, causing an interspace between the two series in the middle of the phalanx. The manner of formation of the interspace is important. The transverse ridges immediately beyond the crease-lines are succeeded by a ridge com-

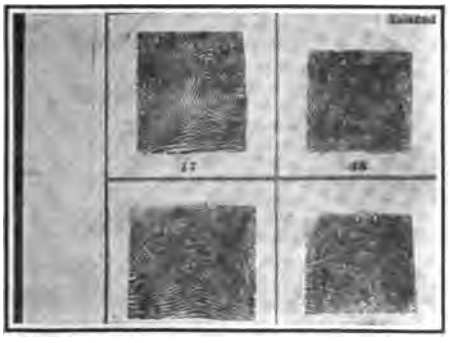

Fig. 2.

ing from one or other side of the digit, which suddenly forks at a little distance to the right or the left of the axis of the digit, Fig. 3A. The lower prong of the fork D runs transversely across the axis to the other side of the finger, while the upper prong, C, pursues an upward and arched course towards and

Fig. 3.

across the axis line, and then descends a certain distance and passes away to the opposite side of the digit to that from which it came, without meeting the lower prong again, thus a gap is left here between the two prongs C and D, and a larger or smaller interspace in the middle of the phalanx. It often happens that

Fig. 4.

instead of a ridge forking as described two ridges which have hitherto run parallel suddenly diverge on one or other side of the digit, Fig. 4, the upper of the two

ridges ascending and curving so as to form an arch, while the lower one continues its more or less horizontal course to the opposite side of the digit, thus an interspace is left between them. In either case the point of the divergence there is formed the base and one side of a delta, Fig. 3x, the other side being completed by a short new ridge forming in the interspace. The delta thus formed is a very important landmark in this pattern, and is never present in arches. The ridges beyond the upper prong or divergent ridge forming the distal boundary of the interspace, are arranged in arches till the nail is reached. Turning now to the interspace, a new series of ridges are found to enter it by the gap, Fig. 3 C. D., left between the two prongs or ridges on the side of the digit opposite to the delta. By these and by independent ridges forming in the interior, the interspace becomes filled up so that no part of it is left devoid of ridges. On tracing this new series of ridges it will be found that in the middle of the gap a ridge from that side of the digit passes into the interspace for a certain distance and then turns round, that is to say doubles round on itself without twisting, and runs again through the gap by which it entered. There may be only one ridge which thus doubles round and forms a loop. More frequently there are several ridges arranged in series round this centre or staple-like loop, some of which pass in and out on either side of it through the gap, but many of them only curve round it in the interspace. The independent ridges filling the rest of the interspace are straight or curved, are of varying length. The top of the central ridge, like the delta, is an important point, because as the outer terminus of the interspace is marked by the outer angle of the delta, so the inner terminus or the point of the core is situated at the top of the ridge farther from the delta, where it begins to bend on itself to form the top of the staple-like end of the loop. These are two fixed points in the pattern between which the number of ridges may be counted and from which the rest of the pattern may be surveyed. Certain variations of the core are not unfrequently met with which require notice. The core may appear as two central ridges which terminate abruptly, or there may be three terminal ridges round which the first of the series of ridges loops. In the former case the two central ridges are considered as the central loop, with the end defective and the point of the core is the top of the more distant of the two ridges from the delta, but in the latter case the top of the central ridge is taken as the inner terminus, the other two rod-like ridges situated one on either side of it being regarded as the legs of the central loop, the arched end of which is incomplete. In counting the number of ridges in a loop pattern the enumeration is made along a straight line from the outer terminus to the inner terminus, but the ridges on which the terminuses are situated are not included, only the ridges between them being counted. The degree of slope shown by loops varies very much in different fingers. In some it approaches the horizontal, while in others it is nearly vertical. The direction of their slope, which is determined by the position of their proximal ends, may be to the right or to the left side of a digit, but it must be remembered that the slope of similar loops will be in opposite directions on the right and left hands. When the distal and closed end or top of the loop is on the same side of the hand as the thumb and the open proximal end opens on the little finger side of the hand it is called an Ulnar loop. When the closed top of the loop is on the little finger side and its open proximal end is on the thumb side it is called a radial loop. According then as the open mouth of the loop is situated on the ulnar or the radial side of the hand so is the loop named. It is also important to remember when looking at the impression of a finger bearing the loop that the direction of the loop appears as the reverse of what it is when the finger itself is examined, and that to determine whether the impression of a single digit with a loop pattern upon it is of the ulnar or radial variety it is essential to know whether the print is that of a right or a left hand digit. Several varieties of form are met with in loops, thus some of the core loops are sometimes found to meet either an enveloping loop or the boundary ridge of the interspace at an angle, they are sometimes slightly deflected downwards at the closed end, or the central

ridge may have an oval eye-like end to it, the long axis of the oval being in line with the ridge. A loop is distinguished

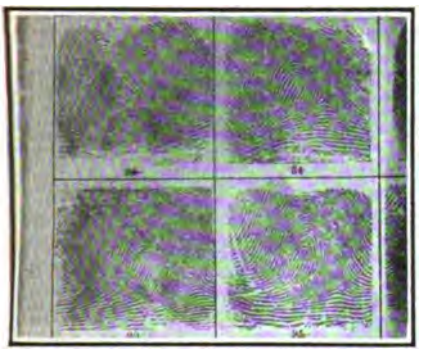

Fig. 4a. Additional Examples of Loops.

from an arch of the tented variety, which most nearly resembles it, by the presence of at least one ridge between the outer and inner terminuses of the loop.

The Whorl, Fig. 5 (diagramatic), is so named from the peculiar manner in which the ridges are coiled on the central part of the phalanx. The arrangement of the ridges forming the boundaries of the interspace between the almost horizontal ridges immediately beyond the crease-lines of last joint and the more distal arched ridges on the point of the digit, is also characteristic and will be considered first. It is a repetition on each side of the terminal phalanx of that which obtains on one side only in the formation of the delta in the loop pattern previously

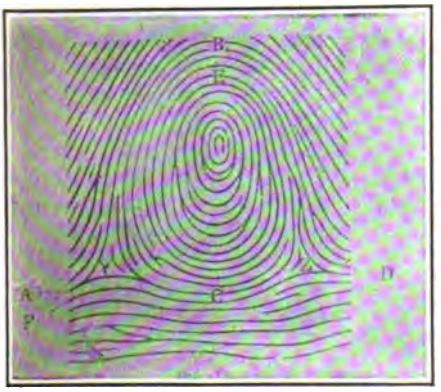

Fig. 5.

described. In other words, in the whorl there are two deltas present Z and Y, and the interspace is therefore closed on either side, so that any new systems of ridges entering into it must do so from above or below the deltas. Three arrangements are found to obtain as regards the relative positions of the ridges forming the lower prong or base of each delta. If the two prongs A C, D F pass in opposite directions across the phalanx without any other ridge intervening or are separated by not more than two ridges, they are regarded as meeting. The lower prong or ridge A, of the left delta (that is following the ridge impression from the observers left to his right, as in reading a line of print, irrespective of the hand from which the impression is taken) may pass along with three or more proximally situated ridges into the interspace *inside* the right delta, or the left prong or ridge may pass across the phalanx proximally to,

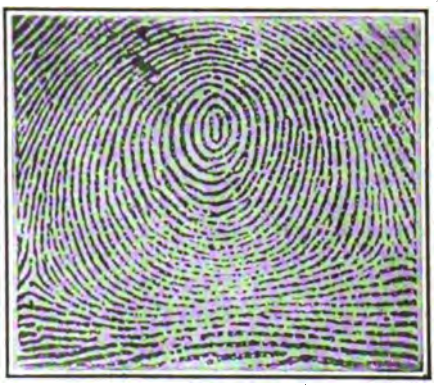

Fig. 6.

that is to say, *outside*, the right delta, while the three or more ridges intervening between the fork ridges will pass from right to left into the interspace and assist in filling it up. A corresponding arrangement may occur in respect of the upper prongs B E as they cross each other at the top of the interspace. The core of the whorl may therefore be fed from below and above only—or from above only, but sometimes it is not supplied with ridges from either of these sources to any extent, and is mainly dependent upon a series of its own arising within the interspace. From what has been stated it will be perceived that considerable variation exists in the appearance presented by the core of a whorl. It may consist of a series of concentric ridges arranged in circular

or elliptical form, or of ridges twisting round in the form of a single spiral or of a double spiral. In circular and oval shaped forms the point of the core is the center of the first ring, but when the

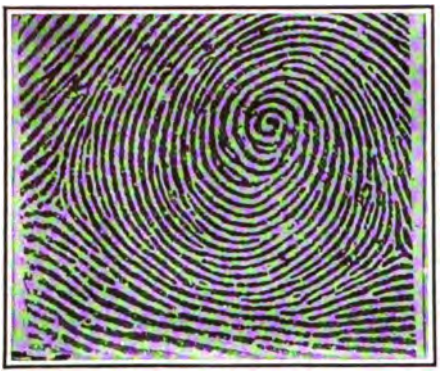

Fig. 7.

whorl is spiral the inner terminus is the point in the centre from which the spiral begins to twist. Figs. 6, 7 and 8 show different varieties of whorls.

The disposition of a whorl may or may not be symmetrical on the digit, but slope to one side or other side, and it may even assume a pear-shaped appearance, the deltas being often on different levels.

The Composites include patterns which are more or less combinations of arches,

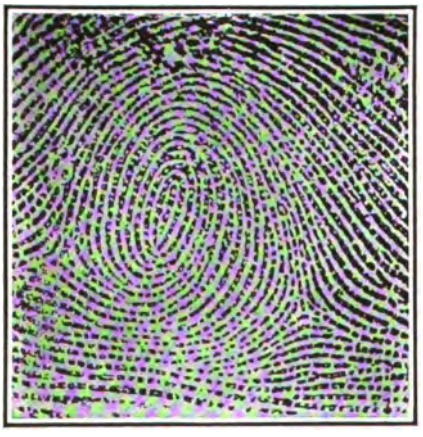

Fig. 8.

loops and whorls, especially of the two latter, and patterns too irregular in outline to be classified under any of the other groups. They always possess two deltas, though in some forms the exact position of one or other of the deltas may be rather difficult to determine, owing to its not being very distinct or obvious. The arrangement of the ridges below the core and in relation to the right delta is ex-

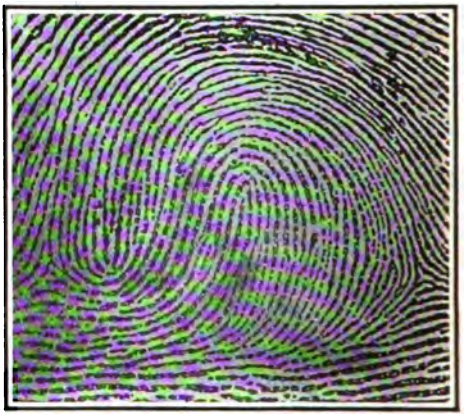

Fig. 9.

actly the same as in the whorls. The chief forms included in the composite class are (a) twin loops, (b) central pocket loops, (c) lateral pocket loops, (d) accidentals.

The twin loops, Fig. 9, consist of two well defined loops, one superincumbent on or surrounding the other, forming the core, which has therefore two inner points. The ridges on which these are situated

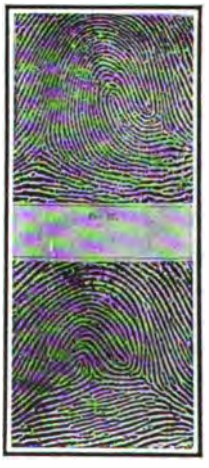

Fig. 10.

pass outward from the core on different sides of the right delta.

The lateral pocket loop, Fig. 10, is also a double loop pattern. The ridges forming the loop bend suddenly downward on one

side before turning round, thereby forming on that side a kind of pocket which is usually filled by the ridges of another loop. They are differentiated from the twin loop type by both the ridges on

Fig. 11.

which the points of the core are situated, passing outwards on the same side of the right delta.

The central pocket loops, Fig. 11, conforms to the loop type as regards the outer ridges filling the interspace, but a few ridges immediately round the core present the appearance of a whorl. Close to the latter the second delta is situated, though

Fig. 12.

not always well defined, but always on the side opposite to the other delta.

Accidentals, Fig. 12, as the name implies, include patterns which can not be classed under any of the above forms; sometimes they appear to be a combination of an arch with a whorl or core, or of a loop and whorl. To this group may be assigned the few patterns which do not

Fig. 13.

sufficiently conform to the definitions of any of the other groups to be regarded as one or other of them.

The relative frequency of these various patterns is in round numbers: Arches, five per cent; loops, sixty per cent; whorls and composites, thirty-five per cent. The greatest variety of patterns is found on the forefinger and the least variation occurs on the little finger; whorls are most frequently met with on the thumb and ring finger; loops on the little and middle finger, and arches on the forefinger. The fore-finger is also peculiar in the frequency with which the direction of the slopes of its loops differ.

Fig. 14.

It is comparatively uncommon to find the whole ten fingers presenting the same pattern of ridges. Generally there is more than one pattern present. Nevertheless, the number of cases in which loops occur

on all the fingers is considerable, and in these cases the slope, number of ridges between the outer and inner terminuses and the distinctive appearance of the loops, and finally the ridges themselves have to be taken into consideration. In cases where whorls are upon all the fingers the varieties of the cores and of the relative dispositions of the ridges with respect to the right delta serve to distinguish them.

Between the digits of the two hands there is, as might be expected, a certain amount of correlation. That is to say, the same patterns occur on the corresponding fingers of the left hand as exists on those of the right, with greater frequency than any other pattern in about the proportion of three to two. The actual degree of correlation between the different digits of the same name varies somewhat, but that between the middle fingers is greater than between any of the others.

A matter of much importance respecting these ridges and the patterns they form is whether they are persistent during life or are they liable to vary from any circumstances. Upon this depends their value for purposes of identification. The data at hand for determining the question are not extensive, and several years may have to elapse before it can be conclusively settled. The material available at present for the solution of the problem is mainly that which has been collected by the energies of Mr. Francis Galton, assisted by Sir William J. Herschel and a few other friends. It consists of fifteen cases; in some of these the impressions of only one finger, in others of two fingers, and in a few all the fingers of one hand were available. In all between twenty and thirty digits have been exhaustively studied by Mr. Galton, the impressions of which had been taken at intervals of from nine to thirty-one years. The ages of the persons at the time of taking the first prints ranged from two to sixty-two years, while the second impressions were taken at ages varying from fifteen to seventy-nine. The result of the research was that in every instance there was entire agreement between the various details in each set of prints with one exception. Comparisons made between numerous other double sets of impressions retaken at shorter intervals show the same persistence of pattern to prevail. The evidence, therefore, is very strongly in favor of there being no material change or variation in the ridges and furrows of the digits during the life of the individual. Figs. 12 and 13 show impressions taken at long intervals, arranged in pairs, for comparison.

In comparing impressions for the purpose of determining the persistence of patterns or whether two sets of impressions are those of the same or of different individuals, the characteristics of the ridges in each print have to be examined with great exactitude. The average number of characteristic points of comparison in an impression of a single finger amount to between thirty and forty. They consist of points of forking and of fusion of ridges, the presence of short, independent ridges at certain given points and of spurs projecting from a ridge, the abrupt termination of a ridge, the appearance of new ridges, and the occurrence of small oval or circular enclosures formed in the course of a ridge by forking and the prongs again immediately reuniting and so walling around depressions that are variously termed craters, lake-basins or islands. Each of these peculiarities has to be exactly localized by counting the ridges from definite points, such as the outer or inner terminus, and by triangulation from these or other fixed prints. In the case of whorls the ridges below the deltas should be traced and their relation to the right delta noted, also the course of the ridges forming the spirals. Allowance must be made, however, for imperfections of printing, thus, for example, a distinct forking of a ridge in one print may appear in another print of the same digit as an imperfect fork, a break in continuity of one or other of the prongs being shown—though generally it is easy to trace some indication of juncture, the important fact to observe being the appearance of a new ridge at the given point, rather than the exact correspondence of detail of minutiæ; again an enclosure or lake basin in one print may appear as a partial enclosure in the other. The scars of incised wounds show a white line, and are attended by dislocation of the continuity of the ridges, whereas crease-lines (which should not be considered, owing

to their liability to vary) show break in continuity, but no dislocation of ridges; other scars, such as those of burns, which have injured the true dermis, show actual destruction of the ridges over a larger or smaller area, according to the severity of the injury. Scars from needle pricks, common on the digits of tailors and women, appear as small, irregular white marks in the impressions. In prints of the same person's fingers taken at different intervals discrepancies arising from injuries are likely to be met with, but owing to the many other points of comparison available on parts not affected by the scars do not materially interfere with the work of tracing their similarity, particularly if there are the impressions of several digits available for comparison.

The results of careful comparisons made on many thousands of finger prints have shown up to the present time no two sets of prints of even a single digit have been found to be identically alike, except they were those of the same digit of one and the same individual. It is the case, however, that single digits of different persons have been found to show not only close correspondence in pattern, but also similitude in three or four points of detail in the pattern; the other points have invariably been sufficiently unlike to differentiate their individuality clearly and with certainty. Finger impressions have, therefore, come to be recognized as a most reliable and easy means of effecting personal identification, and are adopted for this purpose by several police forces for the recognition of old offenders and sometimes for the identification of the perpetrators of crime. Their use might well be extended for the purpose of preventing pensions being drawn by others than the pensioner himself, and indeed for all purposes of identification. When well taken prints of the ten digits of the hands are available for comparison with another set of impressions equally clear, the utmost reliance may be placed upon the evidence they give of the identity or non-identity of the person or persons from whom they were taken.

The impression of one or more fingers may be accidentally made on other substances than paper; it may be on the surface of some object at a place where a crime has been committed on charge of which some person has been arrested. The question of the identity or non-identity of the print found with the pattern on any of the digits of the prisoner becomes a matter of great importance. The casual print has been made under very different circumstances to those with which it is compared; generally it is the result of a digit somewhat moist with the normal excretions of the skin, plus some dirt superadded, coming in contact with a surface not specially suitable by want of smoothness or otherwise to receive the impression, unless the surface happens to be glass, porcelain, or polished metal. The moist condition of the digest may be due to blood upon it, in which case the furrows, as well as the ridges, have probably been covered more or less equally by it. The conditions are, therefore, not as a rule favorable to obtaining good impressions, and it may not be possible to improve them to any extent by dusting powder over them or otherwise. In those cases the greatest caution must be exercised in coming to a conclusion as to the identity of the prints. The affirmative should only be asserted after stringent examination has shown many points in the prints compared to be thoroughly in agreement, and likewise the absence of any obvious disagreement between them. The latter condition is as essential as the former, while the presence of any disagreement should be regarded as distinct evidence that the prints were made by different fingers. A question of some importance is whether any discrepancy will be produced in two prints of the same finger by reason of their being made under different degrees of pressure. Minor variations, such as those which depend on differences in height of the ridges, do occur in the prints as a result of the finger being lightly or heavily pressed in printing; in the latter case a ridge may appear continuous, which in the former case shows interruption in continuity, but irregularity in inking the finger will produce the same effect. Heavy pressure flattens the ridges somewhat, and therefore makes them appear broader in the print, but again this condition is to some extent at least inseparable from the manner of inking the fingers, for if only the summits of the ridges

have been inked, the lines they show in the impression will be narrower than when the ink has extended further down the sides of the ridges. It is only by taking into consideration the general and special aspects presented by the two prints and studying them in connection with the structure of the skin that the factors can be determined. The main features of the ridges and furrows are not distorted or altered in their directions by varying pressure, because in consequence of the difference in consistency which exists between the surface layers of the skin and the subcutaneous tissues the pressure is distributed and equalized in all directions. The expert who is called upon to determine the question of identity or non-identity from casual prints has frequently a difficult problem to solve, upon which he must bring to bear his knowledge of the anatomy and physiology of the finger as well as the information derived from his observations of the prints in order to enable him to arrive at his conclusion. Should he embody photographic enlargements of the impressions in his study he will find it desirable to use positives made on glass in his investigation.

The classification of finger impressions is chiefly of interest to those who have to arrange large collections. It has been elaborated with much care by Mr. Francis Galton and the staff of the Bengal police into a very complete system, of which only the outlines can be given in this monograph. For this purpose the arches are classed with the loops and the composites with the whorls, so that only two divisions of patterns have to be dealt with. The different combinations possible of these two classes on each pair of digits, beginning with the right thumb and forefinger, are then taken into consideration. Under this scheme there are four possible combinations on each pair of digits, which may be represented thus

LL	WL
LW	WW

using the initial L and W for loops and whorls, respectively. The five pairs of digits give individually and collectively with one another one thousand and twenty-four possible combinations, which form the primary divisions of the classification. The size of the groups will be most irregular as regards the number of sets of prints in each, but as the various forms bearing the impressions of different persons' fingers are kept in portfolios a larger or smaller number of groups can be placed together, much after the plan of a dictionary or encyclopedia, covering several volumes, where the size of the volume is the regulating factor. The actual formula of each pair of digits is written in the form of a fraction, of which the upper letter denotes the pattern of the first digit of the pair and the lower letter that of the second digit, thus the right thumb and forefinger bearing respectively a loop and a whorl is indicated as $\frac{l}{w}$, and a complete formula might be written as follows:

$$\frac{l}{w}\,\frac{l}{l}\,\frac{w}{l}\,\frac{l}{l}\,\frac{w}{w}$$

As the number one thousand and twenty-four is the square of thirty-two, all the combinations of the upper letters would be represented in a horizontal row of thirty-two small squares, and those of the lower letters in a vertical row of thirty-two squares, placed at a right angle to the former row. Constructing a large square with one thousand and twenty-four compartments of chess-board-like appearance from these and other rows, each compartment would be accurately defined by the intersection of any of the horizontal lines with any of the vertical lines, and it is possible to assign to each of the one thousand and twenty four combinations represented by the compartments definite numbers corresponding to their places in the horizontal and vertical rows. This is done by considering the whorl division only, and assigning a serial number to each whorl according to the position it occupies in the finger formula. A whorl on either digit of the fifth pair bears the value one, a whorl on the fourth pair is two, on the third pair is four, on the second pair is eight, and on the first pair is sixteen. Taking the formula already given for the ten digits of the hands, it might be written according to the values of the letters composing it thus.

$$\frac{0}{16},\ \frac{0}{0},\ \frac{4}{0},\ \frac{0}{0},\ \frac{1}{1} = \frac{5}{17}$$

Totaling up the values of the rows, the upper row equals five, while the lower row is seventeen, the fraction five-seventeenths would indicate the compartment at the place of intersection of the fifth horizontal row with the seventeenth vertical row, as the definite position in the classification of a form bearing the above value, supposing the respective rows were numbered from 0—31. A finger formula composed entirely of loops would occupy the first place or upper left corner compartment of the chess board and would be designated 0, both horizontally and vertically. By writing out the formula and summing it up for the finger impressions of each person, the exact place he occupies in the primary classification is obtained. Secondary classifications are obtained from the particulars displayed by individual digits, such as the presence of an arch on the fore-finger; the slope of a loop, and the number of the ridges between the outer and inner terminuses; the deposition of the ridges below the deltas in a whorl, the special form of a composite, and the like.

[Written for the MEDICAL BRIEF.]

Sterility in American Women.

BY A. BROTHERS, B. S., M. D.,

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Owing to the institutions of this country, with the opportunities for education and freedom of movement, the American woman is recognized to be intellectually the superior of many of her sisters across the ocean. This advanced position is not without faulty consequences, and these faulty consequences include, among others, a tendency, or rather disinclination, toward having large familes. As we descend in the scale of education among women, we find that this lack of desire to bear children becomes less and less marked, but even among the ignorant classes there is a distinct difference in this regard between the women of various nationalities and religious beliefs.

The modern woman of today, like her educated sisters abroad, aims at having a small family. Perhaps placing the average of three children to a family would approximately express the truth in regard to our wealthy and cultured women of today. Besides the native women our country includes among its inhabitants a large population which has migrated to our shores principally from the older European nations, and which represents the ignorant or peasant classes. Among these women it is safe to say that a family of six children will represent a low general average to a family; in other words, roughly speaking, the number of children in a purely American family is one-half that which we find in the families of our immigrants. . What are the principal reasons for this vast difference in procreation among women with the same anatomical and physiological qualities?

1. The majority of our foreign women are poor, intensely so, and from this circumstance are restricted rigidly to home life, which in itself is conducive to the rearing of families.

2. We find religion more scrupulously observed and believed in the lower we descend in the scale of humanity. Among certain religions, particularly the Roman Catholic and the Jewish, feticide is recognized as a crime in the eyes of the church, therefore, criminal abortions do not receive the complaisant sanction that they do among ladies and classes with lesser religious scruples. Among Jewish women particularly the prevention of conception is rarely practiced, even among the poorest, by the woman herself. The male, on the other hand, frequently may make use of such procedures within certain limits. The orthodox Jewish woman recognizes that she must at all hazards bear children. The Mosaic law has practically marked the Jewish woman as unwomanly if she persists in remaining unfructified. One distinct provision of the Mosaic law allows the husband (with the sanction of the wife) the privilege of divorcing her and taking unto himself another wife, if after a lapse of ten years she has borne him no progeny. Strange as it may seem in this land of advanced

civilization, we have thousands and tens of thousands of these classes of women in our very midst today, so that in large cities like New York it is not an unusual occurrence for a woman to consult a physician in regard to her sterility, and acknowledge that her only reason therefor is based on a threat of the husband to take advantage of this ancient provision of Jewish law, and so deeply fixed is the religious belief of most of these women that they are ready to disregard the protection of the laws of the land in which they live and submit to the law laid down many thousands of years ago.

Nor is this true alone regarding the Jewish race. We find that in ancient Rome similar laws prevailed, so that in the time of the Roman emperor, Justinian, we find divorce allowed because of childless marriage. In this case, however, divorce is allowed the woman because of impotency on the part of the male.

3. The greatest portion of our imported population comes from the absolutely illiterate and ignorant classes, hence the artificial methods of preventing conception which have been so thoroughly mastered by the native daughters of our American soil, remains a closed book to them.

Such methods as include a diaphragm in one form or another cheat Nature of her original intentions. The use of chemicals to destroy or neutralize the natural secretions so carefully and wonderfully prepared for male and female, the use of metal stems introduced within the womb itself by obliging members of the medical profession, are things absolutely unknown and not within convenient reach of the large mass of immigrant women who swarm to our shores. These poor, ignorant and illiterate women are ready to follow in the same grooves laid down by their mothers for centuries. As a result of this ignorance they give birth to their children in regular cycles, covering eighteen months to two years, until ten, fifteen or sometimes twenty children have been born, and frequently they are not embarrassed when their next accouchement happens to coincide with that of one of their daughters.

The American woman has a horror of large families. She has, however, not yet reached the stage attributed to French women by Emile Zola, of being ready to sacrifice her reproductive organs in the desire to avoid conception at any cost. But she does, alas, make use too often for her own welfare of every method of prevention of conception and interruption of pregnancy.

In spite of the disastrous results which follow this mode of procedure, it is only fair to state that very few of our women have any serious intention of remaining absolutely sterile. In their efforts, however, to curtail the number of their offspring, they only too frequently do so at the risk of becoming invalids themselves and of inducing absolute sterility.

In seeking to establish the cause of childless marriages, I find that the male is responsible once out of every four or five times. In some races, particularly among the highly civilized, cultured and wealthy, we find that venereal disease is strictly accountable for this. Among the poor, however, particularly of the Jewish faith, evil personal habits are frequently responsible.

In general dispensary practice, where all nationalities are represented, Engleman, of Boston, found the percentage of sterile women to range between eight and eleven per cent. My experience is that in private practice a much larger proportion of women apply for the relief of sterility, and three times as many Jewish women who wish to overcome this condition than women of other religious faiths. In sterility in all classes of women following an effort to interrupt Nature's course during the first period of pregnancy, I have found that thirty-eight per cent of child-bearing women, who subsequently became sterile, could be directly traced to miscarriage occurring early in married life. Abortions occurring before the end of three months accounted for a large number of these cases. One-third of such relatively sterile women unfortunately had suffered from a difficult childbirth, which had left lesions in the organs of reproduction. One-fourth of such women had suffered from various kinds of pelvic inflammation after childbirth.

The modern woman presents one cause for sterility which her more ignorant sisters from foreign lands seldom show. It is infection with venereal disease of

the genital tract acquired from husbands of a higher civilization and intelligence, but of a lower grade of morals. In a small series of several hundred women applying for relief of sterility, not less than twenty-one innocent wives suffered from the results of gonococcus infection. Allowing that there is no error in the male, and that the woman has no congenital condition to be a bar to fecundity, my experience has been that after a period of from two to five years such women have one chance in ten to become pregnant. After five to ten years the chances are reduced to one in fifty; after ten years the chances are still further reduced to one in one hundred.

These figures are slightly better than for women who have never conceived at all. Still, even in cases of primary sterility there is one chance in ten in overcoming the sterility, and the more seriously the woman looks at the matter from the earliest period after marriage, the better the chances for overcoming the condition. The advice given by some authors to wait until three or four years after marriage until Nature has been given a fair trial is wrong. I should advise no woman to wait longer than one or two years before placing herself under proper medical supervision, and better to place herself in the hands of a thorough student of gynecology, for in no class of cases are greater care and better judgment required.

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[Written for the MEDICAL BRIEF.]

Some of the Difficulties in the Diagnosis of Recurrent Attacks of Appendicitis, with Case Report.

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The question of diagnosis in an obscure intra-abdominal disease is a very important matter, both to the patient and the physician. Ordinarily it is not difficult to make a correct diagnosis in recurrent appendicitis. But, occasionally, one sees a case in which the diagnosis of appendicitis is suspected, but very difficult to prove. There are two conditions which may be confounded with and mistaken for recurrent appendicitis. These are a stone in the right kidney, and gall stones. On the first impulse one would say that it did not make very much difference whether a positive diagnosis of appendicitis was made until after the operation was undertaken. But after due deliberation, it must be granted that it would be very much better for all concerned if it were possible to make a positive diagnosis before the operation is begun.

When we duly appreciate these complications we see how necessary it is to be certain of the diagnosis before proceeding with the operation, because if it is a urinary calculi it would be much better for the patient to make the incision in the loin and extirpate the stone in that manner.

In a given case where a positive diagnosis can not be made before the operation is commenced, one could make a three-inch incision at the outer edge of the right rectus muscle, the lower end of the incision just over McBurney's point. This would permit exploration of the appendix, the gall bladder and the kidney. If the condition proved to be chronic appendicitis, the incision could be extended, if necessary, an inch lower down, giving ample room for all necessary manipulation. If the condition calling for the operation was found to be a diseased gall-bladder, the incision could be extended upwards. This necessitates a very long incision, however, and is far from an ideal operation for gall stones, and unnecessarily weakens the abdominal wall. For this reason I prefer to make a second short incision just over the gall-bladder for removal of gall stones or for drainage of the gall-bladder. If our exploration demonstrates the presence of a urinary calculi, the stone could be removed by the combined operation of Thornton.

It is most desirable if one can always make a positive and correct diagnosis, and say that this is appendicitis, that is gall-stones, the other one a urinary calculi; and I will grant that in a large

majority of cases, this can readily be accomplished by the careful physician, yet this does not always hold true, as the following case very forcibly illustrates.

Mr. J. L., farmer, aged forty-nine, residence, Camargo, Ill. The case was referred to me on February 13, 1905, by his physician, with an uncertain diagnosis of appendicitis, gall stones, or urinary calculi. The case gave such a varied and complicated clinical history that one could well call it either one of the three, and have a good clinical history to substantiate the diagnosis. The man was of spare build, always temperate and correct in his habits, a hard worker, and enjoyed most excellent health until early in June, 1904, at which time he was taken suddenly ill with an obscure pain in his abdomen, which continued for about one week. The man was compelled to keep his bed for three or four days, and at this attack he had a slight rise of temperature the first day. The second day his temperature was about 101° F., and the pain was localized in the region of the head of the colon. On the third day after his attack, his doctor was uncertain whether or not there was a slight enlargement in the region of the appendix.

The abdominal muscles over the whole abdomen were rigid. On the fourth day he was better, and on the fifth day he left his bed. He was much needed on the farm and from this on he superintended the labor, but made no attempt to do any manual work for more than a week later. The doctor at that time made a diagnosis of appendicitis, and so stated to his patient and his family. From this until the time he came under my observation the patient said that he was never perfectly well. He was always conscious of something wrong in the right half of his abdomen. The location of the pain varied from the kidney down the course of the ureter, with an irritable bladder, with frequent desire to urinate. The pain also shifted to the region of the gall-bladder, and he was always tender over the gall-bladder upon palpation. The skin became slightly colored, like jaundice, but the conjunctivæ were not discolored. He was able to superintend his work until about the first of October, at which time he had a second attack. The pain was very acute for the first few hours, requiring a hypodermic injection of morphine for relief. The following day his temperature was 101°. All the pain was referred to the region of the kidney, radiating down the ureter, with frequent desire to urinate, with occasional vomiting. The acute symptoms passed off in thirty hours, but he remained in bed, upon the advice of his physician, for five days.

The entire abdominal muscles became rigid and tender upon palpation, and the abdomen became distended with gas. There was no pus or blood in the urine, but with the pain located in the kidney, and the pain paroxysmal in character, the uncertainty of any enlargement of the appendix, the diagnosis was changed to urinary calculi. After a week or ten days he resumed his occupation as before, but always as that of a semi-invalid. His family physician urged him to consult a surgeon, telling him he would have to be operated on before he recovered. The doctor wrote to me in reference to the case at that time. But the patient concluded he would defer the operation with the hope that Nature would cure him, and I heard nothing more from him or his doctor until December, 1904. The doctor wrote me about the 20th that the patient had been ill since the 15th of December with a very sharp attack of pain, and he was inclined to believe now that the patient was suffering from gall-stones. He said the attacks of pain were intermittent, just as gall-stone colic is, that he had extreme tenderness in the region of the gall bladder, that he required morphine in large doses to relieve him; that he was more discolored than heretofore, and there was a slight jaundice of the conjunctiva, and he vomited frequently. He had a temperature for several days during this attack, ranging from 100° to 101° F., and one day the temperature was 102° F. The entire abdomen became rigid, with marked tenderness in the region of the gall bladder and over the kidney, extending along the course of the ureter and especially over the head of the colon. There was never at any time a distinct lump which could be localized in the region of the appendix, and over that region there was always an area of resonance

upon percussion. After this attack, which continued for four weeks before the man was able to leave his room, he consented to have the operation made, but he wished to wait until he regained his health somewhat. He lost fifteen or twenty pounds in flesh, and weighed when he came to see me on February 13 about one hundred and twenty pounds. He looked much older than forty-nine years. He was anxious now to have the operation made if it was thought best to do so. When he entered the hospital his pulse was eighty, and his temperature was 99.6° F. at 7:30 P. M.

Upon examination of the abdomen the muscles were rigid over the entire abdomen. When he was asked to locate the seat of pain, he said he could not do so, that the whole right side pained him some place inside. He described it as a deep soreness. He could walk readily, but said that it hurt him to do so. On palpation the abdominal muscles were so rigid that it was impossible to palpate with any degree of satisfaction. By percussion there was no dullness to be detected over the head of the colon.

The kidney was not enlarged, and there was no enlargement in the region of the gall bladder. The conjunctiva were very slightly tinged, if at all. The skin was somewhat bronzed, appetite was poor and bowels constipated. He had a frequent desire to urinate. Repeated microscopic and chemical examinations of the urine were negative. The man was kept under observation for six days. A careful clinical history was taken and written out for reference. For four days daily his history was carefully gone over and recorded again in writing to see if we could elicit anything new, and especially to compare the answers. The same questions were asked in each examination, varying the phraseology somewhat, using a history blank to record the answers for the purpose of being minute. The symptoms were so like stone in the kidney that at the end of the fourth day I decided to have an X-ray picture made (as that will usually show the presence of an urinary calculi, if one exists), to see if that would throw any light upon the subject, as he referred to the pain more to his kidney than he did to the gall bladder. There was also more tenderness upon deep pressure over the lower margin of the kidney than over the gall bladder or appendix. The X-ray picture, which was a good one, was negative.

In dealing with recurrent attacks of appendicitis, I am convinced that in almost every case examined in the interval, one can find a tender point over the appendix, but this symptom was of no value in this case because there was tenderness over the entire right side of the abdomen, and especially so over the region of the gall bladder and the kidney. The muscles likewise were also rigid at this time. When he came to the hospital I was convinced that he must be operated on before he would get relief, and this fact had some bearing upon the delay in confirming the diagnosis. You will observe that I have omitted one very important point, in fact, the most important one, in settling definitely the diagnosis in all obscure conditions inside the abdomen; and that is placing the patient thoroughly under an anesthetic for the examination. I have always insisted upon this and have practiced it for years. I spoke repeatedly of this to the patient, but told him it was one of the three conditions mentioned, and that we would make the one anesthetic do, that we would be prepared when we gave him the anesthetic to make whatever operation was found necessary after he was anesthetized. It was decided on the evening of the 19th that on the morning of the 20th we should operate. It was agreed that after he was under the anesthetic, if we could not make a positive diagnosis from palpation, that is, if we could not locate an obscure lump or enlargement, we would make an exploration of the abdomen in the region where we could make an appendectomy and explore the kidney and the gall bladder. If we found a kidney stone we would make an additional counter opening in the loin for the removal of the stone. If we found gall stones we would make a second short incision over the gall bladder to remove them. When he was placed on the table and the abdomen perfectly relaxed, by very gentle palpation over the region of the appendix, a distinct hard lump could be felt, apparently

about the size of a hulled black walnut, deep down in the region of the appendix, which was not adherent to the abdominal wall. I at once changed my plan of making the incision in the line of the right rectus muscle to that of the usual McBurney incision for the removal of the appendix. In other words, my heretofore uncertain diagnosis was now made positive as that of appendicitis, and the operation proceeded.

Upon opening the abdomen we found the intestines glued together over the head of the colon, covered over with a glutenated omentum. These were separated and we opened an abscess holding about a drachm or two of very thick, offensive pus. The appendix was perforated near its attachment to the colon, and this was the nidus of the infection. The pus was carefully cleaned away, the appendix removed, and over the soiled area a narrow strip of gauze was packed, and a counter opening was made three-fourths of an inch in length, near the anterior superior spine of the ilium, the gauze being carried out through this opening as a convenient place for its removal, which was done on the fourth day. By this procedure you eliminate the danger of contamination of the catgut used in closing the wound, and thus prevent a hernia. The abdominal incision was closed without drainage. The patient made a rapid and uninterrupted recovery, and regained his health perfectly. The case is an interesting one as illustrating "some of the difficulties that may be encountered in the positive diagnosis of recurrent attacks of appendicitis." It also illustrates in a very forcible manner the desirability in doubtful cases of administering an anesthetic to aid in making a correct diagnosis.

628 Elm Street.

I have been a recipient of the BRIEF for a long time by regular subscription, and assure you that the BRIEF fills a place second to none in my daily reading.—L. P. ARMSTRONG, M. D., Newtown, Ind.

[Written for the MEDICAL BRIEF.]

A Few Points on Circumcision.

BY O. L. SUGGETT, M. D.,

Professor Syphilology; Associate Professor Genito-Urinary Diseases, Barnes University; Surgeon in Department of Genito-Urinary Surgery in Centenary Hospital and Barnes University Dispensary; Consultant in Venereal Diseases, City and Female Hospitals; Member A. M. A. St. Louis, Mo.

It is a little strange that an operation, the necessity for which was recognized so many ages ago, should not enjoy in this day the fullest understanding. As to the antiquity of the operation, its origin probably antedates its performance by Zipporah, wife of Moses, upon her son, which is recorded in the twenty-fifth verse of the fourth chapter of Exodus (about 1491 B. C.), for it is unlikely that she should have ventured upon so radical a procedure without having had a precedent, even though actuated as she was by a resentful spirit.

In substantiation of the fact that the presence of a prepuce (foreskin) was an indication and a mark of uncleanliness and impurity, from a spiritual as well as an hygienic standpoint, the ceremony, or procedure of removing it (circumcision) among those religious sects who practice it ritually, is performed in lieu of the baptismal ceremony of other denominations, showing its possessor to be unclean in the sight of the Creator (as well as man), it is one of the residual evidences of man's origin according to the doctrine of Darwin. It is, indeed, the sheath commonly called sheth of the reproductive organ, found in horses, dogs and the lower orders. All male children at birth have a prepuce of greater or less redundance, and of variable retractability. The prepuce, which is a reduplicature of the skin covering the body of the penis, assumes in its inner layer (that which comes in immediate contact with the glans penis) a quasi-mucous membrane character, the secretions from its odoriferous glands and sebaceous follicles furnishing the disagreeable and highly offensive smegma, with which its possessor and the genito-urinary specialist has continually to contend.

As the boy approaches and passes beyond the age of puberty, the growth of the penis

being disproportionate with that of the foreskin, the glans-penis is gradually, almost imperceptibly, pushed through and beyond the preputial orifice, the latter turning inside out, as it were, until at the proper age in the normal individual the glans is completely uncovered, and that portion of the foreskin which closely covered the glans-penis and kept it continually bathed and saturated in a secretion far more offensive than pus, has gradually lost its muciferous character, and becomes quite nearly like the external skin of the penis, of which it is a virtual continuation, without the former reduplication, except, perhaps, a few redundant folds just back of the sulcus, to allow for its elongation with the occurrence of an erection. Such is its natural evolution and that which occurs in the majority of individuals. Those in whom this natural uncovering of the glans does not take place will engage our attention. It was for their relief and benefit that the various operative procedures for removal of the foreskin (circumcision) were created. There are numerous reasons for its removal, while there is no rational excuse for its existence.

At least two conditions may account for the existence after the period of adolescence of a long foreskin in some individuals; the first, and probably the most frequent, being phimosis. The contraction of the preputial orifice and its lack of elasticity, or, in some instances, its intimate adherence to the glans, are sufficient to prevent the glans from insinuating itself into, and ultimately beyond it, thereby uncovering or freeing itself, as it were; hence, in its growth or in its temporary engorgement (erection), it carries the foreskin forward with it. The other and less tenable reason is in the case of those children in whom the preputial orifice is sufficiently patulous, non-adherent and retractable, but who, as babies, are continually pulling at their prepuce, stretching it forward, which develops into a habit, persisted in far into their boyhood. I have seen gonorrheics and others, after placing a piece of cotton over the meatus, stretch the foreskin forcibly forward, a procedure which, if persisted in, undoubtedly tends to lengthen it. Though the word phimosis is derived from the Greek word which means to constrict, it is applied to any abnormal redundancy of the foreskin, constricted or not. It is this constriction of the preputial orifice when retracted which is responsible for that condition ofttimes serious, if not even dangerous, paraphimosis, an emergency which, failing of reduction and relief by manual manipulation, urgently demands a dorsal slit to relieve the tension and strangulation and release the engorged glans; or later, if not at the time, a complete circumcision to prevent a recurrence of the accident. Foreskins which are long, but not necessarily phimotic (constricted), are a source of uncleanliness (germ harboring), and though not a source of danger from paraphimosis, require removal for hygienic reasons. I might say here, and I believe that it is the experience of other genito-urinary specialists, that fewer than ten per cent of our patients are Jews, and that more than eighty-five per cent of our venereal cases have long foreskins. The reason for this is obvious. The numerous folds, cracks and crevices in a long foreskin are most excellent places for the lodgement and retention of bacteria, and the secretion from such a prepuce furnishes a rich, nutrient culture medium for their growth and propagation; the many little recesses not being reached by the ordinary ablutions practiced at the time of exposure (not forgetting the intoxicated ones who wash carelessly or not at all), whilst the washings and cleanings required once or twice daily in the absence of any exposure are an annoyance and a nuisance. The sensitive, delicate and tender condition of the epithelial covering of the glans and inner surface of the foreskin, when restricted, render it especially liable to injury (abrasions, strong antiseptic solutions commonly and ignorantly used), and such an abrasion becomes an ideal location for the entrance and confinement of pathogenic secretions, whilst this very delicacy of the mucous membrane and the close contact of its opposing surfaces permits and promotes a maceration of the epithelium and absorption of the virus, even where no abrasion exists. This is especially true of chancroidal, though less of syphilitic virus. Sores, venereal and otherwise, when once formed beneath

such a foreskin are protracted and rebellious to good treatment on account of the irritation incident to the friction of the opposing surfaces, combined with their being continually bathed in a fetid secretion.

Various conditions and emergencies render the operation not alone a necessity but imperative. First may be mentioned paraphimosis of a non-inflammatory type, when the condition can not be relieved, or reduction and replacement be effected by manipulation, or taxis, as it were. This condition often occurring in children, and occasionally in adults, is merely a vascular engorgement of the glans following a retraction of the foreskin, either accidentally or purposely, preventing by its constriction a return of the blood through the veins and producing a strangulation of the parts beyond. Operative interference in this instance is most often limited to a mere snipping with scissors or scalpel of the constricting band. A circumcision at this time would not be out of place, and aside from its requiring but a little more time and preparation and pain to the patient, he or his friends would be easily impressed and convinced of its value and needfulness upon this occasion. Needless to say that this simple non-inflammatory condition may become one of a highly inflammatory and serious type if permitted to continue for many hours.

Next may be mentioned the inflammatory and edematous type of phimosis and paraphimosis of varying severity, which was primarily so (the result and not the outcome of inflammation), such condition occurring in an otherwise easily retracted and loose foreskin. This variety is frequently found in a lymphangitis accompanying gonorrhea.

Many accidents could not occur in the absence of a foreskin. A few of the injuries I have seen in my clinic are: burns from the use of strong solutions of carbolic acid or corrosive sublimate, put up in convenient tablets, sold by the pharmacist and so commonly used by persons having promiscuous sexual relations; extensive or deep cauterization, uncontrolled or unlimited, practiced indiscriminately by the patient or the druggist upon an oftentimes innocent lesion or abrasion; bites or other injuries inflicted through pervert acts; tears through trying to force the glans through a constricted preputial orifice, tears resulting from the bursting of a condom, or French ticklers, ingenious devices invented to increase (or decrease) the pleasure of the sexual union, "haircuts" and other injuries produced while effecting intromission, besides numerous instances of self-inflicted injuries and mutilations by the sexual hypochondriac or the insane. Any of the above wounds may, of course, become infected and most often do.

Other morbid conditions affecting the situation which this state of phimosis may complicate are the initial lesion of syphilis (chancres) chancroids, epitheliforma, acute or chronic eczema, simple ulcers, lymphangitis, erysipelas or venereal phlegmonous erysipelas, various syphilides and lupus erythematosus. A number of these conditions remain unrecognized until they have assumed formidable proportions, when concealed by such a prepuce. Especially true is this of chancroids, which become very troublesome and difficult to treat successfully when so situated. Under such circumstances, should a circumcision become absolutely necessary to expose them, there is little hope of avoiding infecting the entire surgical wound, thereby creating an ugly state of affairs indeed. A number of recent experiences have forced me to the conclusion that a circumcision and not a dorsal slit should be made, as the latter only imperfectly exposes the sores, and the edema accompanying the almost inevitable infection prevents a complete retraction of the foreskin, so that should the sores be in the sulcus, behind the corona, upon the sides and under portions of the glans, you have bettered conditions but little, if any, and ultimately have a "dog-eared" condition, which must be corrected, any way.

(In a subsequent paper I will give the technic of my operation.)

Commercial Building.

I could hardly do without the BRIEF. I send two dollars to continue the BRIEF for the time it will cover.—W. P. ROYSTON, M. D., Pape, Mo.

[Written for the MEDICAL BRIEF.]

The Sympathetic System and Pelvic Lesions.

BY M. H. AXLINE, B. L., M. D.,

Professor of Gynecology and Abdominal Surgery in the Cincinnati Polyclinic and Post-Graduate Medical School. Cincinnati, Ohio.

The sympathetic nervous system plays an important part in the symptomatology of diseases of the viscera. Extending from the skull to the coccyx it provides a means of communication between the viscera, which it supplies en route. This intimate connection often gives rise to unexpected phenomena in the presence of disease. Two rows of ganglia, one on either side of the corpora vertebræ, form the main trunk of this system. These ganglia are connected with each other and with the spinal nerves by nerve trunks. These two chains are united in the cranium by Ribés' ganglion, and in front of the coccyx by the ganglion impar. The nerve bundles leaving the ganglia pass forward through plexuses and ganglia, eventually reaching the organs which they supply. The histology of this system shows it to contain very fine, nerve fibres, whose cells are located in the spinal cord, together with fibres whose cells are located in the sympathetic ganglia. The fibres of the Rami communicantes between the ganglia and spinal cord are mostly efferent and vaso-motor. The sympathetic nervous system, if we disregard this admixture of spinal nerve fibres, appears to be distinct from the great central system. The axons of these cells do not intermingle with the dendrites of the spinal cells, nor do those of the spinal cells appear to carry impulses to the sympathetic cells. The function of those cells and fibres, distinctly sympathetic in origin, is a limited control over and co-ordination of the actions of the body viscera. This is borne out by a study of reflexes or sympathetic manifestations which can not be reasonably explained by investigation of the cerebro-spinal system. The sympathetic system is not sensory, and in the following studies it is noteworthy that all pain is caused by the secondary condition, and is not a reflex pain from the organ in which the lesion exists. Furthermore, it is of importance that it is not acute conditions but conditions of a graver or chronic character that most frequently cause reflex phenomena.

The uterus and ovaries being plentifully supplied with ganglia, and fibres originating in the hypogastric plexus and its divisions, are often the starting point of such reflexes, which manifest themselves in far distant organs.

The eye receives sympathetic fibres from the third, fourth, ophthalmic division of the fifth, and sixth cranial nerves, besides a branch accompanying the central artery into the eyeball. Pelvic disorders may cause such symptoms as asthenopia, epiphora, dilatation of the eyeball, ptosis of the lid, and even recession of the eyeball, resulting in headaches and other secondary symptoms. At times the ocular trouble assumes primary importance to the patient, who visits the oculist, only to find that glasses, however well adjusted, do not afford permanent relief. (At times glasses properly adapted to the condition afford relief for a day or two.)

The following illustrates very typically several features of this sympathetic reflex originating in the pelvis. An eminent oculist of this city received a young woman in his office who complained of trouble with her eyes. His examination revealed some astigmatism, which he corrected, with but temporary relief to the patient. After repeated examinations he at last elicited the information that her menses occurred tri-weekly. He then referred her to me. She gave a history of defective vision of several months' duration, which, as stated, was not permanently relieved by glasses. Furthermore, she stated that she had been a sufferer with periodic attacks of sick headache with severe vomiting and nausea. These attacks were increasing in frequency, and at this time occurred two or three times a week. She often thought that certain foods brought on these attacks, but she was not sure. Constipation present but not marked. Heart slightly erratic, both in force and frequency. Stomach showed hyperchlorhydria but no dilatation. All symptoms were marked by their irregularity in force and time of occurrence. Vaginal examination re-

vealed a cystic ovary the size of a goose egg. Removal caused a cessation of all symptoms, and as she said, "I am a well girl for the first time since I can remember."

The salivary glands, thyroid and breasts, are known to be in intimate relation with the generative organs, and disorders of these glands which appear to be idiopathic usually indicate some disease in the pelvis. The pelvic symptoms, however, are usually of such a character as to attract the attention of the examiner. These glands receive fibres through the cervical and superficial cardiac plexuses of the sympathetic.

The esophagus often presents the so-called globus hystericus in pelvic lesions, but this is rarely, if ever, the most prominent symptom and usually accompanies some gastric disorder.

The heart is unusually well supplied with sympathetic fibres and ganglia, and is more or less disturbed in all affections of the uterus and appendages. This deviation from the normal consists in changes in rate and force, but rarely anything more serious. The condition might be called cardiasthenia. The beat gradually becomes slower and weaker, although quite regular for several moments, when it very suddenly becomes stronger and faster, probably when the condition of the blood becomes such as to cause inhibition of the vagus. The signs might be overlooked except by continued or repeated examinations. The results of this condition are anemia, slight pallor, which alternates with more or less flushing, shortness of breath, lassitude and deficient nutrition of the entire body. This condition is often mistaken for anemia, and is common in girls at puberty, whose sympathetic system is not fully adjusted to the changes in the generative organs. It is also noted at the menopause, when conditions are reversed. When occurring between these periods it is suspicious of pelvic disorder and indicates a careful examination of this region.

The stomach is often a Waterloo for the general practitioner. We may have cases so severe that it is not thought necessary to look further for the lesion; indeed, if such a thing were attempted, the patient might accuse the physician of being mediesome. The symptoms are about the same as in the morning sickness of pregnancy. A case typical of this condition occurred recently at the Cincinnati Polyclinic. A patient, of about forty years of age, presented herself at the clinic, complaining of stomach trouble. There was pain but no marked tenderness over the stomach. This pain extended upward beneath the sternum with occasionally the sensation of a lump in the throat. There was belching, some nausea and occasional vomiting, usually aggravated by eating but not entirely dependent upon the ingestion of food. The variation of symptoms and failure to reveal any definite lesion, together with the futility of treatment, indicated a nervous dyspepsia. The professor, noting that all her symptoms were aggravated monthly, referred her to the gynecological clinic. Examination here disclosed a general congestion of the pelvic viscera. A few days of treatment directed to the pelvic organs relieved the gastric symptoms entirely. An interesting and instructive feature was the cause of this congestion. Although she had a child over twenty years old, and still lived with her husband, she stated that she had never had an orgasm. This in spite of the fact that sexual desires were easily stimulated. The repeated congestion of the genital organs, without the natural relaxation accompanying orgasm, had gradually set up a chronic congestion, with its attendant symptoms.

The bowels very frequently respond to pelvic troubles, with constipation, sometimes alternating with diarrhea. This condition may become very severe and treatment appears to give only temporary relief. It is customary to attribute this to pressure on the rectum, which is true in some instances, but probably such cases are less frequent than sympathetic constipation.

The urinary system manifests its sympathy by polyuria, frequent urination and occasionally cystitis, dysuria and other symptoms. This, too, has been erroneously attributed to pressure.

Diagnosis in the above conditions may be difficult, but usually yields to painstaking examination. The greatest difficulty is woman's natural modesty, which, of course, must be respected, yet when a

possibility of such sympathetic involvement exists, a most thorough examination is the only justifiable course.

In individual cases the strongest proof of the nervous origin of the above conditions is their variability and nonconformity. Symptoms most pronounced at one examination will, under exactly similar conditions, be hardly noticeable. Thus, nausea may occur at the sight of food, while later in the day even eating will arouse no such symptoms. Then, too, the symptom complex usually lacks some important symptom. Thus, dilatation of the stomach may be absent when according to all other symptoms one would expect to find it present. The absent symptom may appear later on, only to mark the disappearance of another equally important. An anatomical lesion is never present as a result of the secondary condition. There may occur a coincident condition. For example, the eye is usually myopic or astigmatic, but then oculists tell us that emmetropia is extremely rare.

Treatment of the secondary condition usually gives temporary relief, but on account of the variance of symptoms beneficial treatment of today may aggravate the condition tomorrow. Sedative and tonic treatment is always grateful to the patient, and she is an easy convert to the many nostrums embodying these features. Rational treatment is, of course, directed toward the primary cause.

Further study along these lines will undoubtedly remove many of the clouds that obscure our knowledge of hysteria and neurasthenia, their effect and cause.

4 West Seventh Street.

[Written for the MEDICAL BRIEF.]

Buttermilk as an Infant Food.

BY S. M. BLOOMSTEIN, PH. G., M. D.,

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Nashville, Tenn.

Buttermilk as a food for infants suffering from dyspepsia and diarrhea has been used in the hospitals of Rotterdam, Holland, for some years, and during the last three years has been employed with great success by Prof. Baginski in the Kaiser and Kaiserin Hospital at Berlin. It may be difficult to see how children could thrive upon this method of feeding, since the proteid contained in the buttermilk averaged about four per cent, but the fact remains that babies suffering from the various forms of dyspepsia recovered under this feeding more rapidly than by any other system of feeding. Of course, there were some cases not adapted to this method of feeding, but these cases were in the minority, and the rule was a steady improvement in the health of the infant, following this diet.

Baginski insisted that the buttermilk be fresh daily, and this one fact that fresh buttermilk only must be used makes this system of feeding rather difficult, but where such buttermilk can be procured daily, there is little doubt in my mind as to the value of its use in the conditions before mentioned.

The method of preparation, as practiced by Baginski, is as follows: To one litre of fresh buttermilk were added thirty-five grams of sugar and thirty grams of wheat flour. This was placed over a fire and heated under continuous stirring, until it reached the boiling point, when it was removed and allowed to cool a few minutes, when it was again replaced and again heated to the boiling point. This process was continued for three successive times, then strained through gauze or a fine sieve and immediately placed in bottles and kept on ice.

The little patients were first given a cathartic and the bowels thoroughly cleansed. During the first twenty-four hours nothing was given except a little barley water. At the expiration of this time, or in bad cases, on the second or third day they were started on the buttermilk feeding. In most cases the character of the stools immediately changed, vomiting ceased, diarrhea stopped, and the children improved rapidly.

As the patients were removed from the hospital upon recovery, I had no means of following these cases. Most of the children were put upon a sweet milk diet after being removed to their homes, or some "infant food," and not infrequently the dyspepsia returned and the babies were again brought to the hospital for treatment.

Finally, it became the custom in the hospital, owing to the difficulty of carry-

ing out this method of feeding in the patients' homes, to accustom the babies to the sweet milk diet for a few days prior to their removal from the hospital.

One interesting point is the fact that the very young infants received the same kind of food as the older ones, the only difference being in the quantity given. Where this food is continued for any length of time after the infant is in good health, a very small quantity of butter should be added to the mixture daily to supply the fat deficiency in the buttermilk.

126 North Spruce Street.

[Written for the MEDICAL BRIEF.]

The Relation of Clinical Pathology to Practice.

BY E. E. SMITH, M. D., PH. D.,

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There was a time, and not long ago, when clinical pathology consisted of a few crude examinations made by the practitioner in his back office while the patient waited. At the present time, among the practitioners who are able to work to best advantage, such examinations are given to the specialist and are conducted in a laboratory properly equipped for this purpose. The value of these improved and extended laboratory examinations depends upon a number of factors.

The practitioner himself is responsible to some extent for the value of the results obtained. This is in part because he controls the material and upon him rests the decision as to what shall go to the laboratory and what shall not. If a case is referred to the laboratory for one or more examinations, simply because other means of diagnosis have failed, the results may be of value, but it is not to be expected that they will so frequently be helpful as when the laboratory examination is directly indicated. The character of the specimens must be such that the efforts of the clinical pathologist will be made to advantage. It is not an unusual experience for an unrecognized case of pulmonary tuberculosis to visit the laboratory office for a blood examination because of suspected malaria. Of course, in such an instance the clinical pathologist usually does not suggest an examination of the sputum without a previous consultation with the practitioner.

Many practitioners, desiring that the laboratory report shall be unbiased by clinical symptoms, neglect to give any history of the case, at the same time requiring from the clinical pathologist an opinion as to the interpretation of his findings. This is unfortunate; such an opinion must necessarily be guarded and in most instances is equivocal. This uncertainty would in a measure be removed by a personal consultation with the pathologist after receiving the report. In most instances it remains for the practitioner to reach the final opinion in the case. This suggests the limitation in the usefulness of the laboratory report that arises from a failure of the practitioner to give the results due consideration. It happens with some physicians that they have already decided on the diagnosis, and only give weight to the laboratory findings when they are confirmatory of their preformed ideas. In some instances this is unquestionably justified by the preponderance of the clinical symptoms, but the independent value of the revelations of the laboratory in other instances is equally unquestionable.

Another responsibility taken by the practitioner in the examinations of the clinical pathologist is in the taking of specimens. Much material sent to the laboratory is unfit or insufficient for the examination desired. Dried blood smears are thickly spread; discharges that need to be stained are sent dried between the slide and cover glass; the specimen of urine is not collected at a favorable hour, and perhaps has already undergone decomposition; blood to be examined for malaria has been taken after the administration of quinine. Some of these deficiencies can be overcome by the resource-

fulness of the pathologist, but others can not.

The success of the laboratory worker depends in the first instance upon his ability to obtain suitable specimens, and finally, to conduct properly the examinations themselves. As to this latter, the personal equation is quite as great a factor as in other departments of medicine. The person making or having a responsible charge of laboratory work in the field of clinical pathology needs to be familiar with the fundamental facts of biology, including bacteriology and histology, of pathology, and of chemistry. The fact that he is familiar with certain tests and even that he can conduct them intelligently and well does not warrant his being recognized as capable of assuming the entire responsibility of the laboratory examinations under consideration. There is as much difference in laboratory men as in men of any other vocation, and it is incumbent upon the physician to see that his work is undertaken by those properly qualified as to their ability, their training and their experience. Nor is it safe to depend upon the reputation of a laboratory, as the management, and with it the policy of any institutional laboratory, is subject to change. The growth of clinical pathology has been naturally attended by the springing up of many laboratories; some under the control of manufacturing firms and drug houses; the laboratories of health departments and colleges and private laboratories. A personal acquaintance with those having professional responsibility of the work is advisable.

If the material for laboratory examination has been properly taken, and if the work of the clinical pathologist has been properly done, there is yet another factor to be considered in estimating the value of the results, viz., the interpretation and use of the findings. Here, as everywhere, extremes are to be avoided. Where errors of diagnosis are not dependent upon errors in technique, they can usually be attributed to the lack of conservatism in interpretation. As in other departments, the use of the facts revealed by clinical pathology demands firmness in the interpretation of unequivocal indications and conservatism where the laboratory finding is less conclusive.

26 East Twenty-Ninth Street.

[Written for the MEDICAL BRIEF.]

The Essential Incontinence of Urine.

BY CHARLES SETH EVANS, B. S., M. D.,
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This variety of incontinence is observed almost entirely among infants and young adolescents, and is characterized by the involuntary emission of urine without any apparent lesion of the urinary apparatus. I wish particularly to call attention to this form, as it is not only the most frequent form of incontinence but the form which is most frequently misunderstood. It has been well studied only among authors who have formulated certain theories, of which one may say they are all right and all wrong, because of the fact that they have limited themselves to the one symptom common to all the types, that is, involuntary passage of urine at night. However, if one would take the trouble to study these little patients during the daytime he would be immediately struck with the fact that they belong to many and different types.

The first of which, and the type which represents the great majority of the cases, is one in which the child wets the bed at night, while during the daytime he has perfect control of the act of urination. Yes, more than perfect control; is able to retain the urine beyond the average time. In school this boy rarely troubles his teachers with a request to go out, and for that reason this type is not known by school teachers. Whereas, in another—the second type—the child is also afflicted by copious involuntary voiding of urine at night, he has frequent and imperious desires to urinate during the day. His request of the teacher that he may go out is more in the nature of a demand, and he hastens out and reaches the urinal barely in time.

The third type may have the same nocturnal symptom, differing in the diurnal symptom in that when he "goes out" in school he reaches the urinal too late. In other words, he has a diurnal as well as nocturnal incontinence.

To these three types, which are really the three types of essential incontinence

of urine, may be added two others for completeness. One, in which there is a continuous incontinence of urine both day and night, and the other in which the incontinence is associated with epilepsy and epileptic seizures.

To consider these forms in detail let us say that in the first form, the essential incontinence of urine is of the psychopathic order, which corresponds to the theory of Petit. Petit describes this form exactly and definitely, and perfectly understood its cause. It is purely of psychopathic origin. A child may have this form of incontinence from infancy, or, in other words, may never have obtained complete control in what we call the second infancy. It shows itself along the fifth, sixth or seventh year, or perhaps sooner, and is characterized by the fact that it is associated with nocturnal dreams, which dreams are augmented as to their occurrence by the punishment administered to the child. It is a well-known fact that the dreams which we remember in the morning are those that occur in the last moments of our sleep; so these children, if they are caught in the act, awakened and questioned, will tell a story of having had a dream, not necessarily of urinating, but of the fall of rain, or of running water, of a babbling brook, or possibly of seeing some animal urinate, and responding to this dream the bladder contracts and there is involuntary copious emission of urine. This form, then, is due to no trouble with the urinary apparatus; it is simply and purely psychopathic, and must be treated as such. Needless to say that punishment administered to the child, or threats of subsequent punishment, but increase the condition, because the child's last thoughts before going to sleep are along this line.

The second class due to vesical irritability, according to the theory of Trousseau, is characterized not only by the nightly emissions, but by the frequent and imperious diurnal micturitions. This class, which has been called by the English writers the "irritable bladder," is frequently found associated with some sort of external irritation, such as phimosis, atresia of the meatus, or hypersensitive spinal irritation.

In the third form, which is the form of essential incontinence of urine due to faulty contraction of the sphincters or a urethral anesthesia, according to the theory of Guyon. This form differs from the others in the fact that the patient is unable to have complete control of the bladder during the day as well as during the night. This is the form in which the child soils its linen before reaching the urinal, and is most frequently due to a faulty development of the genital apparatus, of the sphincters, or to a previous operation dealing with the dilatation of the sphincter, or, occurring in later years, is due to hysterical anesthesia of the posterior urethra. These patients are still able to empty their bladders completely when in the erect position by means of the abdominal press. They have no real paralysis of the bladder, but simply an inability to promptly contract the sphincter on the one hand, and on the other hand a lack of the normal sensation of the urine in the posterior urethra. The incontinence naturally occurs when the bladder is full, and from the contraction of the muscles the urine is forced into the posterior urethra.

In the fourth condition, due to paralysis of the bladder and of the sphincters, the urine escapes in small jets, or drop by drop. This is a most infrequent variety in children, and is caused either by the prolonged retention of the urine or of the forcing of the sphincters to relieve the same, or what is rare in infants, of hysteria.

As to the form which occurs with epilepsy, the fifth variety, it has been very well studied by Trousseau and others, and interests us but merely to mention it, an evacuation of the bladder which occurs at the end of an epileptic seizure.

As to prognosis, it must be said in general that the prognosis is good in all the forms, even the paralytic, and all respond early to treatment.

As to the treatment, many remedies have been mentioned, among them belladonna, strychnine, electricity, and even chloral. We must consider the different forms with which we have to deal. The treatment of the first form, the psychopathic form, must be of a thoroughly psychopathic nature. It must be sugges-

tion, and to the parents of the child the assurance may be extended that at puberty the child will certainly recover. Puberty works its changes in the child by changing his line of thought. From a micturial preoccupation the child is apt to have a sexual preoccupation, and at that time the sleep becomes less profound, the child awakening very easily to the contraction of the bladder. The sleep can be made less profound by keeping the child from sleeping upon his back by means of some simple appliance, and by the administration before sleeping of a little black coffee.

In the second form, vesical irritability, we find that the belladonna works extremely well.

In the third, electricity and strychnine serve a very valuable purpose, as also in the fourth form, whereas the fifth form rarely comes under the notice of the genito-urinary specialist, more likely in the hands of the neurologist.

There has been a method of treatment by spinal puncture proposed, but I have had no personal experience with it, and I would hesitate to employ it because of the danger, though minimum, which is associated with it.

5 Garfield Place.

[Written for the MEDICAL BRIEF.]

Chloasma (Liver Spot Disease).

BY S. A. PEAKE, M. D.,

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This peculiar affection of the skin, which is macular in form and diffused over the back, chest and trunk, is one quite frequently met by the general practitioner, and causes much concern as to its identity, because of its low organism and tendency to recur, the patient's own idea, *i. e.* (liver troubles), where such discolorations of deep yellow or yellowish brown, or chocolate brown is found; their differentiation is often the cause of much study, especially if the patient has been using arsenic, silver nitrate, etc. The well defined form of chloasma uterinum is so named on account of its frequent association with pathological conditions of the uterus, both in the married and unmarried. In hysteria, pregnancy, anemias, ovarian disorders, there will be noted certain changes in the skin's coloration, usually over the region of the forehead, of a yellowish brown type; but in the class of patients whose skin has been the subject of tuberculosis, cancer, malaria, syphilis, the hue of coloration is more of a yellow or deep chocolate.

Chloasma advances with great persistency, not only selecting the trunk and chest, but frequently occurs over the back and neck. Often after the patient has followed instructions for treatment, the discoloration may return after a few days and disappear again after a return to medication, only to again appear more progressive than ever.

Persistency in treatment is one of the cardinal points in this peculiar trouble. The various discolorations due to eczema, lepra scleroderma, are of an entirely different hue, and are not in any way liable to be mistaken for chloasma. The above discolorations are due entirely to an excess of the coloring matter normally deposited in the skin. In furfuraceous desquamation, the existence of a vegetable parasite is readily demonstrated under the microscope; this low organism has a tendency to roam over the skin, taking in new fields and rapidly producing discoloration.

Many methods have been advised for the early destruction of the trouble. For this purpose sulphur has received much attention. Mercury, iodine, benzine and carbolic solutions have been used. Many cases of dermatitis have been traced to a desire on the part of the patient for a too severe treatment with mercury for the removal of the discoloration. Ptyalism is not uncommon. A case of dermatitis recently under my care was due to a too severe inunction of mercury for the removal of chloasma.

A treatment which has met with universal satisfaction in recent years is that of thoroughly applying to the affected area sapoviridis and rubbing same into the skin well, allowing it to remain thirty minutes, then washing well with hot water, and applying a solution of hypo-

sulphate of sodii twenty-five per cent; daily applications of this treatment usually suffice to destroy the parasite and cause bleaching of the skin. Benzine, a cheap product, and usually found in every home, accomplishes in a remarkably short time the total destruction of the lesion. I have observed that under this form of treatment, where the ordinary lye product of home manufacture has been used, similar to the method employed in the first treatment and then followed by a liberal application of benzine, that the process yielded rapidly and did not recur. With the foregoing methods of treatment this annoying condition of the skin will rapidly disappear.

Commercial Building.

[Written for the MEDICAL BRIEF.]

Lubrication in X-Ray Exposures.

BY GEO. H. EVERHART, M. D.,

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In the long tirade of abuse which has been vouchsafed in the case of light therapy against the X-ray, in regard to a condition known as "X-ray burn," I feel somewhat as does the surgeon of the present day in regard to pus, that, in some way, somehow, the surgeon or his technique are responsible for all infection, and while the many and various antiseptics are of value in assisting nature in a cause most injurious to good surgery, yet with the knowledge possessed by the present-day surgeon, the blame can in no way be reflected upon the chief actor, his assistants and paraphernalia. That asepsis is the only road to success in surgery has long been established. With this knowledge the profession and the world at large is given a great degree of confidence and surety in all the stages of surgery under careful, watchful technique. With the surgeon, an established, well-worked out law of technique has been formulated. All experimental stages have given place to proved conclusions. If error is apparent, the blame rests where it belongs. While with light therapy, this new avenue of medication, whose field is of equal importance to the medical world, these laws of technique vary so widely that it is next to impossible to form any fair working conclusion. That much has been done for the advancement of this work by able-minded men and women, with the result that there has been a gradual narrowing down process of the overgenerous technique. Yet there have been so many points of discussion to be solved that in the limited time that the work has gone on, opportunity has not been afforded for the regulation of all conditions. This state of affairs, its cause, its treatment, the danger to patient, have been widely discussed, but very little useful information has been gleaned as to its prophylaxis, what the surgeon would consider, asepsis.

Early in my use of this agent I reasoned that if this medium was of value as a destroyer of a pathological condition, that it must also, to a certain extent affect the normal tissue; that if the pathological condition of lupus, rodent ulcer, carcinoma, etc., were being attacked and made inocuous by the ray of this light, that, to a greater or less extent the normal tissue must be influenced, so that in my judgment all the epithelium that surrounded these tissues was needed in the restoration of the condition to its normal state. I endeavored to keep as nearly as possible the epithelium from degeneration by the use of the light, and have found the most efficient means to be a thorough soaking or steaming of the surrounding tissues, as contrary as this would seem to an ordinary sunburn, where the burn increases by contact with water.

After each treatment I have an assistant to well massage the surrounding tissue. So positive am I that this treatment is effectual in lessening and preventing burn, that I never allow a radiograph to be taken without first being prepared in this way. I have seen from eight thousand to ten thousand exposures during the last four years, with remarkably little degeneration, and positively not a single burn.

100 West Twenty-Fifth Street.

[Written for the MEDICAL BRIEF.]

On Some Conditions in Which the Presence of Albumin and Casts in the Urine Does Not Necessarily Indicate Serious Renal Disease.

BY E. G. WOOD, M. D., C. M.,

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The desire to find some sign pathognomonic of disease too often leads many of us to unduly exalt the diagnostic value of individual symptoms and signs. By attaching too much importance to these signs our diagnostic perspective soon becomes narrow, precipitate conclusions are formed and unfortunate errors arise.

Probably no clinical signs have been accorded a greater value than the presence of albumin and casts in the urine. For a long time many practitioners believed that albuminuria indicated serious, structural disease of the kidney and a diagnosis of Bright's disease was at once recorded. It was soon discovered, however, that renal albuminuria occurred in many other conditions than Bright's disease, such as the acute specific fevers, toxic irritation of the kidneys, changes in the blood pressure in the renal vessels, the congestion of serious cardiac disease, various nervous manifestations, etc. Then it was thought that the association of casts with albumin was sufficient to stamp the case as one of serious organic disease. But traces of albumin and sometimes casts were occasionally discovered in the urine of perfectly healthy individuals who presented absolutely no other sign of disease. It was observed that healthy individuals might present a slight albuminuria after excessive ingestion of nitrogenous food, severe muscular exercise, cold baths, etc. By some writers these cases have been classed as physiological albuminuria. It is, however, highly improbable that appreciable quantities of albumin can pass through the renal epithelium under strict physiological conditions; it is more than likely that the albuminuria always indicates disturbed function in the epithelium of the glomeruli and tubules that may be transient and of trifling importance or permanent and due to grave structural disorder. Though some cases in which traces of albumin are found in the urine of apparently healthy individuals subsequently develop other signs of Bright's disease, many either recover or live in perfect health for years and never die of renal disease, though they are the subjects of persistent or intermittent albuminuria. In many of these cases the pathological condition responsible for the albuminuria is not clear. Every physician whose practice has extended over a period of years must be impressed with the number of cases in which he has discovered albumin and possibly casts in their urine and yet they never developed any other signs of renal disease. Observation over an extended period must convince us that both albumin and casts may be present in urine quite apart from any form of Bright's disease. In drawing attention to two interesting conditions in which the albuminuria is in itself of minor importance, I do not wish to be understood as minimizing the value of examinations of the urine, but rather as emphasizing the importance of drawing our conclusions more from the general condition of the patient than from the state of the urine.

Orthostatic Albuminuria.—The great majority of cases of orthostatic albuminuria occur in childhood and early adult life, and in children many have been preceded by the infectious diseases. It has been observed more frequently in females than males and different observers have recorded two or more cases in the same family. All writers on the subject refer to the neurotic condition of these patients and Mix is of the opinion that adults affected with this albuminuria are almost invariably neurasthenic. He proposes the term "neurasthenic albuminuria of adults," and attributes the excretion of the albumin to the vaso-motor paresis so common in neurasthenics. As a rule, in orthostatic albuminuria there are no subjective symptoms, and these individuals generally consider themselves quite healthy. In adults various neurotic symptoms are common, and particularly throbbing of the abdominal aorta. But in the adult cases the condition is usually discovered

accidentally, often during an examination for life insurance.

The urine is normal in quantity and its specific gravity is usually 1020 or over. Albumin is uniformly absent in the urine secreted during the night, but appears shortly after rising and continues until the patient retires at night. It is usually present in traces only, but sometimes in considerable quantity. Casts, as a rule, are absent, there being no hypertrophy of the left venticle, no accentuation of the aortic second sound, increase in arterial tension or other signs of renal disease. Many cases entirely recover after a definite period, improvement seeming to follow free exercise in the open air. In other cases the albuminuria persists for years without any apparent failure in health, and many such cases have been recorded.

The recognition of a case of orthostatic albuminuria should not be very difficult, but in some instances a definite conclusion may not be reached until the individual has been kept under observation for a considerable period. The intermittent character of the albuminuria, occurring through the day, but being completely absent during the night in an individual who presents no cardio-vascular changes or other signs of renal disease should at once suggest this condition.

A condition much more common in this country than that just described is the slight albuminuria often met with in men past middle life. The discovery of a trace of albumin and a few tube casts in the urine is a bar against a man's acceptance by any life insurance company, and in the minds of many physicians is sufficient evidence to warrant the diagnosis of Bright's disease. Physicians of some years' experience, who have made a practice of examining urine of their patients, must have been struck with the frequency with which a trace of albumin and a few hyaline and perhaps granular casts are met with in certain men who have crossed the meridian of life. Active business and professional men who have lived a strenuous life, working at high pressure, eating freely and perhaps drinking a few glasses of wine daily, often show at a comparatively early age some evidences of vascular degeneration. Among these evidences I am impressed with the fact that a slight albuminuria and a few tube casts are not uncommon. In addition one may find that the radials are palpable, the temporals prominent, the arterial tension high and the aortic second sound accentuated. The urine contains a trace of albumin, often persistent, and a few casts usually hyaline, but sometimes granular. It is but little in excess of the normal, ranging from fifty to sixty-five ounces, and its specific gravity is not very low, usually between 1015 and 1022. Yet these men consider themselves healthy, and are astounded when they are informed that they are rejected for life insurance on account of their urine. If told that this condition means Bright's disease, they are immediately thrown into a state of alarm, which may be the means of inducing them to modify their habits and to begin anew, living as near as possible to the physiological line. If such a man will eat moderately, abandon his alcohol and be content to slow up, he may enjoy many years of active life in good health, and never develop any further signs of kidney disease.

It may be said that a patient who presents the symptoms enumerated, viz., albuminuria with casts, arterial changes and high tension must be the subject of chronic interstitial nephritis, and if not, how can the two conditions be differentiated? I admit that in many of these cases it may be very difficult, if not impossible, to exclude chronic Bright's disease until the patient has been under observation for some time, yet I am convinced that these men are not suffering from the chronic interstitial change which we recognize as cirrhotic kidney. I believe in these changes the renal condition is a secondary degeneration, senile in type, occurring in the subjects of arteriosclerosis. The albuminuria, in my experience, is always slight, and may be transitory, entirely disappearing, if the patient changes his habits, gives up whisky and eats moderately.

Two years ago an active, energetic and successful business man of thirty-eight consulted me in a state of alarm because albumin had been discovered in his urine by a life insurance examiner. He had suffered for some years from a mild

neurasthenia, but otherwise considered himself quite well. He worked hard under constant high pressure, lived very well, drank from three to six glasses of whisky, and smoked ten to twelve cigars daily. On physical examination the apex beat of the heart was in the fifth space in the nipple line, the aortic sound was accentuated, the radial arteries were palpable, and the blood pressure registered 200. He averaged sixty ounces of urine in twenty-four hours; it was clear, with a specific gravity of from 1016 to 1021. There was a distinct trace of albumin, and a few tube casts both of the hyaline and granular varieties. There were no eye changes and no edema, and he looked well. This man at once corrected his habits, ate sparingly, gave up his whisky, and cut his cigars down to three per day. In four weeks his urine was entirely free from both albumin and casts, and though it has been frequently examined since, no trace of albumin has been found, and he is now apparently in perfect health.

I have followed other cases in older men for a much longer period, and while in some of these tube casts and a trace of albumin are constantly found in their urine, they have developed no other symptoms, and continue to live active and healthy lives. Two of these men were said (ten and six years ago respectively) to have chronic Bright's disease, yet today both are active men and consider themselves in good health.

From the foregoing it may be gathered that while albuminuria always suggests grave organic disease, both albumin and tube casts may be present in the urine in the absence of any recognized renal lesion. Both albuminuria and casts must be regarded as symptoms which must be considered in connection with all the other features of a case before their significance can be properly estimated, and before the presence or absence of serious organic disease can be decided.

123 North Spruce Street.

Enclosed find three dollars. Continue sending the BRIEF. Always enjoy entertaining and being entertained by the BRIEF.—C. C. PARNELL, M. D., Marks, Miss.

[Written for the MEDICAL BRIEF.]

Principles and Practice of X-Ray Therapy.

BY OTTO JUETTNER, M. D., PH. D.,

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The average physician looks upon the therapeutic use of the Röntgen rays as an interesting experiment which at one time promised a great deal, but has accomplished comparatively little. That this "experiment" possesses positive therapeutic value with well-defined clinical indications is denied by the bulk of the profession, while even radio-therapeutists of experience hesitate to make an unconditional statement of this kind on behalf of the mysterious X-ray. And yet, the Röntgen rays, as a therapeutic agent, do occupy an established position. The disappointments which have followed in the wake of X-ray therapeutic work are all attributable to one factor: misuse of a valuable therapeutic agent in the hands of misinformed or unskilled operators. The popularization of the static machine has placed the Röntgen rays in the hands of every physician who cares to invest in a machine. His equipment includes an X-ray tube. He is told how to attach the tube properly and then proceeds to bungle along, treating one case after another without diagnostic consideration for his case, and utterly disregarding the physical conditions of his tube. Thus he adds to the bulk of X-ray work which is done throughout the country. After his first optimistic ardor has cooled off, he neglects the work and joins the vast army of the skeptics who smile at the claims which are made on behalf of radio-therapeutic work. Adding to the skepticism of the bulk of the profession the untold injury which yellow journalism has inflicted on this modern branch of therapeutic work, we can readily understand the unjust position of X-ray therapy and the reasons therefor. Yet it is an undeniable and an easily demonstrated fact that the X-ray

is an established therapeutic agent with a clearly defined sphere of usefulness. It is not a panacea nor is it a specific. Like all other therapeutic agents in medicine and surgery, it meets certain conditions within certain limitations. The personal equation of the patient's physical makeup is always a factor which cannot be defined with accurate precision. It is always the unknown quantity in any therapeutic problem, and makes the concrete application of any therapeutic agent an art, however scientific the abstract physiological activity of the given therapeutic agent may be. In this sense X-ray therapy is on precisely the same level with the bulk of therapeutic agents at our command. The success of X-ray therapeutic work depends on an accurate knowledge of the physical phenomena which are included in the radio-activity of an excited X-ray tube. Without some knowledge of the physics of the X-ray tube, the therapeutic use of the Röntgen rays is nothing but haphazard guesswork.

THE PHYSICS OF AN EXCITED X-RAY TUBE.

What happens when the converging beam of cathodal light is concentrated in the anodal focus and unites with the electro-positive element? The appearance of the illuminated X-ray tube is familiar. One hemisphere is aglow with a greenish light, while the hemisphere behind the anodal (anticathodal) disc remains dark. These phenomena were known long before the time of Röntgen (Crookes, Geissler). Röntgen's discovery concerns a force-modality of some sort originating on the external surface of the excited tube. Röntgen could not account for the evidences of this mysterious radiating energy, and designated them, therefore, as the unknown-quantity-rays, or X-rays. They are the product of an induction process of some sort or other, or, to speak with more accuracy, it seems that the phenomena which take place in the excited tube induce a series of correlative force manifestations outside of the tube. I say "correlative," because the X-ray phenomenon depends in all its characteristics on the ever varying physical conditions which prevail in the interior of the tube. The term "X-ray" then is rather a generic term covering an almost endless variety of manifestations and degrees of intensity of this mysterious induced force.

The most important physical element of the tube is the degree of exhaustion. Upon it depends the relative intensity of the phenomena induced on the outside of the tube. From the lowest degree of exhaustion to the highest vacuity compatible with the safety of the glass tube there is a constantly changing activity on the outside of the tube. As the degree of exhaustion becomes higher, the X-ray waves seem to travel with greater velocity and penetrating power. The wave lengths diminish in inverse ratio to the internal resistance of the tube, while the number of undulations, measured in units of space dimension as well as of time increases. As the internal resistance of the tube decreases, the wave length of the force manifestation on the outside of the tube increases, while the number of undulations per inch or per second is gradually diminished. In making these statements we are reasoning from premises which are furnished by the vibratory theory of force manifestations, now generally accepted by physicists and by the experimental evidence adduced by careful observers.

The computation of the length and velocity of vibrations of the different parts of the solar spectrum is not altogether a theoretical calculation. Wave speed and wave length, while they are the results of abstraction and deduction, furnish the only plausible explanation of the various phenomena of light, light transmission, and, in fact, of all manifestation of force by which matter proclaims its existence in nature. The X-rays being one mode of energy, must have their undulations and their wave lengths analogous to those of other force manifestations. When the vacuum of the tube is too low for X-ray production, there is, nevertheless, an abundance of chemical light-energy. These radiations are located in the spectral field beyond the violet end, and, therefore, classified as ultra-violet radiations. This is a distinctly generic designation, because it refers to perhaps thousands of different forms of radiation whose wave speed is greater and wave length less than those of the

rays in the violet field. The length of a wave from the violet field is approximately given as the 0.0000167 of an inch, while the number of undulations per second is about 727,000,000,000,000 (Eisenlohr, Silliman). The radiations from the ultra-violet field diminish in wave length as they get further away from the (visible) violet field, while the vibrations increase in number. All these vibrations belong to the invisible chemical field of the spectrum.*

That the force-modalities which are manifest on the outside of an excited X-ray tube generically include an indefinite variety of force-modalities representing different speed and length of oscillation and undulation of ethereal molecules, is plain. That some of these modalities are characterized by relatively slow oscillation and comparatively long waves is proven by the presence of heat rays, while, strangely enough, spectroscopic analysis of cathodal rays shows a scarceness of luminous rays but an abundance of chemical rays. It seems justifiable, therefore, to consider the Röntgen rays a generic aggregation of force-modalities rather than one specific kind of radiation.

The question of refrangibility is of some importance in solving the problem of the character of the X-rays. The least refrangible rays are the red. The refrangibility increases toward the violet end of the spectrum. It has been stated that a certain quantity of ultra-violet radiation comes from the inside of the X-ray tube and penetrates the glass. Considering their extreme refrangibility, it would not be difficult to imagine these radiations to have been refracted by the curved surface of the tube, which in this case acts like a prism. This seems to offer a plausible explanation for the tangential waves which Walter has described under the name of "Secondary radiations." They are unquestionably refracted ultra-violet radiations from within the tube.

That the X-rays belong under the generic head of ultra-violet radiations is further shown by their action on sensitive photographic plates. They affect photographic plates like actinic rays. The greater penetrating power of the Röntgen rays is due to the speed and intensity of transmission. The ordinary chemical, solar or electric arc light does not affect the silver throughout the entire thickness of the film, but only the superficial layers of the film. The X-rays penetrate the film down to the glass. In this way the different manner in which a sensitive plate acts after an X-ray exposure or after exposure to sunlight is easily explained. It is almost impossible to overdevelop an exposed X-ray plate, because the whole film down to the glass has been acted upon.

The intercepting power of glass is another feature which suggests the similarity of the two forms of radiation. Finsen discarded glass because of its absorptive action. He used rock crystal in its place. It is peculiar that glass will cast a decidedly deeper shadow on the fluoroscopic screen than rock crystal. The latter, if a good, pure quality, seems to offer absolutely no obstacle to the Röntgen rays.

The therapeutic effects seem to furnish the best evidence. The destructive action of the X-rays results in necrosis due to impairment of the trophic nerves and a resulting obliterative endarteritis. The so-called X-ray burn is distinctly a necrotic process. The same effect on a smaller scale and more superficially is noticed after forced application of concentrated actinic rays. Beginning with the primary erythema, the subsequent dermatitis and the resulting deposit of pigment, the effects of the two forms of radiation are certainly only different in degree of intensity and the depths of penetration. I have seen a typical dermatitis and superficial necrosis follow prolonged actinic exposures, the gross features and microscopic appearances not differing in the least from analogous effects produced by the X-rays. The relative degree of germicidal action of the two forms of radiation is unquestionably an argument in support of the views expressed. The ultra-violet rays are distinctly germicidal; so are the radiations from a low tube. The higher the internal tension of the tube, the slighter is the effect on germ life. This fact has estab-

*Quoted from author's "Contribution to the knowledge of the radio-activity of the X-Ray tube," *Journal of Advanced Therapeutics*, May 1905, and *Journal of the Rœntgen Society*, London, England.

lished the therapeutic value of the soft tube, and, at the same time, explains the futility of the therapeutic efforts made with the higher tension tubes. No one thinks nowadays of X-ray therapy in connection with deep-seated lesions. The harder the tube, the more meager the amount of energy generated, the more rapid the penetration and diffusion. The softer the tube, the greater the output of energy, the more concentrated and powerful the effect. The softer the tube the more striking is the resemblance between the action of the X-rays and the effect produced by concentrated chemical rays.

My object in dilating upon these physical characteristics of the X-rays is plain. I desire to demonstrate that they are true ultra-violet radiations, and thus to find a solid scientific basis for the therapeutic indications of X-ray work. We are fairly well acquainted with the physical character and the physiological activity of actinic rays. Finsen's researches have given us much information concerning this subject. If the X-rays generically are ultra-violet radiations, we are no longer at sea in regard to their therapeutic possibilities. One additional point indicates the strong generic relationship between the two force modalities. Finsen has shown that the deposit of pigment in the skin is Nature's way of protecting the organism against the destructive action of the actinic rays. Pigment absorbs these rays. Experience has taught me that the skin of the negro offers more resistance to the X-rays than non-pigmented cuticle. It is harder to get a good skiagraph of a negro's spine than that of a white man. The large surface exposed (abdomen and back) contains so much pigment that a good deal of X-ray energy is lost, being absorbed by the pigment. The pigment in the red blood cells absorbs X-rays. Thus, we can explain why it is comparatively easy to skiagraph a bloodless part (hand after an Esmarch bandage has been applied to the arm). Radiographers know that an anemic person is an excellent subject for radiographic work.

The practical conclusions from these theoretical premises may be summarized as follows:

1. The X-rays and the actinic and ultra-violet rays of the solar spectrum belong under the same generic head.

2. The difference between the two force modalities is the greater speed of oscillation and the shorter wave length of the Röntgen ray.

3. The penetrating power of the X-rays is in direct proportion to the pressure of the vacuum in the tube.

4. Penetrating power and quantity of energy are in inverse ratio to each other.

5. Like all induced forms of energy the X-rays lose their volume in proportion to the distance from the source of induction.

6. The X-rays, like all actinic rays, are slightly intercepted by pigment in the skin and in the blood (hemoglobin).

7. The destruction wrought by the X-rays is due to the disintegration of the pigment carriers (skin and red corpuscles).

8. The therapeutic action of X-rays is confined to the place of greatest interception, *i. e.*, the skin.

These eight points contain the principles of X-ray therapy. Translating the language of the theoretical physicist into the therapeutic directions which the X-ray operator needs in his practical therapeutic work, the eight points enumerated above could be formulated as follows:

1. Generically speaking, the active principle of X-ray therapy and of Finsen light and sunlight is the same *i. e.*, the germicidal, stimulating and destructive ultra-violet force modality.

2. The ultra-violet ray of Finsen is closer to the violet field of the solar spectrum than the X-ray.

3. The harder the tube, the more penetrating the rays; the softer the tube the more superficial the effect.

4. The harder the tube the less X-ray energy; the softer the tube the greater the amount of X-ray energy, making the soft tube the ideal therapeutic tube.

5. The closer the tube is to the skin of the patient the more intense the effect.

6. The X-rays are partly taken up by the pigment of the skin and in the blood. The greater the amount of X-ray energy the greater the amount absorbed.

7. The X-rays, after being partly absorbed by the skin pigment and the hemo-

globin, first produce a stimulating effect. Through the sympathetic (vaso-motor) nerves, the stimulating effect is reflected and thus a stimulating and pain relieving action is obtained in distant or deep structures. If the application is continued, over-stimulation takes place, resulting in irritation of the pigment carriers (skin and blood corpuscles). The skin reacts by a distinctly inflammatory process. The red corpuscles are disintegrated and the small arteries are occluded, causing local necrosis by lack of nutrition. If the part is composed of morbid tissue, the latter dies, leaving a comparatively healthy ulcer behind. The absorption of the X-rays by the red corpuscles explains the phosphorescence of the tissues which frequently interferes with the skiagraphic result. It also explains the appearance of an X-ray burn in parts that have not been directly exposed. If an X-ray treatment is not pushed to the extent of overstimulation, it may enhance local metabolism. This explains the absorption of growths after X-ray treatments.

8. X-ray therapy should be confined to superficial lesions. The cure is accomplished by disintegration and subsequent local destruction of the pigment in the red blood corpuscles. Keeping in mind the physics of the X-rays and the physiology of their action on organic tissue, we can readily see that deep-seated lesions are inaccessible to the therapeutic action of the Röntgen rays. In addition to this, we know that the therapeutic effect is in proportion to the amount of X-ray energy. Since the latter is in inverse ratio to the penetrating power of the rays, and since the deeper the lesion the greater the penetration required, it stands to reason that energy is lost according as we increase the depth of penetration.

THE TECHNIQUE OF X-RAY THERAPY.

The fundamental law of therapeutic X-ray work is suggested by the necessarily superficial character of the therapeutic effect produced by the Röntgen rays. The soft or low vacuum tube produces an abundance of X-ray energy with but scant penetrative power. The soft tube is, therefore, the therapeutic tube par excellence. Gauged by Walter's skiameter, it should light up three or four of the test holes of the instrument. The standard for an exposure is ten inches distance between the tube and the surface to be treated. The duration of the standard treatment is three minutes, a treatment to be given every other day. This kind of a treatment (soft tube, distance ten inches, duration of treatment three minutes) would under ordinary circumstances produce a stimulating effect, and result in more active granulation and absorption. It would be indicated in indolent ulcers, in various forms of skin disease due to malnutrition, in fact, in all conditions which demand an increase in local metabolism. In most non-bacterial skin diseases the results are not usually permanent, because these diseases are but local expressions of systemic conditions. By lessening the distance between tube and skin, or by continuing the exposure for a longer time, or by repeating the treatment every day, the effect would be intensified. It would be like increasing the dose of a remedy. When the action of the rays get beyond the stimulating point, the germicidal effect is best marked. Whether the latter is produced by the action of the ray on organisms of but little resisting power, or whether the germicidal effect is coincident with the accumulation of oxygen in the part treated, is not quite clear. It has been demonstrated, however, both by laboratory experiments and on the living subject, that pus germs and the tubercle bacillus soon are rendered inert and finally die if they are exposed to oxygen. We know that currents of high voltage and high frequency have an effect on the composition of the atmospheric air by their affinity for oxygen. How far this affinity will affect the oxygen in the body we are as yet not prepared to say. There is, however, no doubt about the germicidal action which follows applications of the X-rays. If the X-ray dose is increased still more, we arrive at the point at which destructive effects are to be expected. A destructive treatment would be administered by a soft tube used every day for five to ten minutes at a distance of ten inches. This is the typical X-ray treatment for superficial cancer. It is understood, of course, that the stimulating, germicidal or destructive

effects do not follow one treatment, but represent the accumulative effect of a series of treatments.

It would be folly to recognize iron-clad rules, which must prevail in any and all circumstances in every case. The personal equation of the patient as apparent to the individualizing judgment and to the experienced eye of the operator, is the unknown quantity which can not be forced into the tight-fitting limitations and indications of a stereotyped law. As long as every patient presents a personal equation of his own to be solved by the personal equation of the physician, every kind of therapy must necessarily contain an uncertain element which makes therapeutic practice an art rather than a science. The suggestions given are hypothetical. In applying them the experience of the operator must adapt them to concrete conditions. This may mean shortening or lengthening the exposures, changing the distance of the tube from the skin, etc. It is understood, however, that the tube must at all times receive its full capacity of current. There should be no sparking. The current should not overheat the anode before the time of exposure is over.

The surface to be treated and the anodal disc should be placed approximately parallel to each other. An imaginary line drawn through the center of either should be at right angles to the plane of the anode and to the plane of the surface to be treated. Thus, if a patient suffering from epithelioma of the lower lip is lying on his back on a suitable table, the tube should be placed directly over the affected area. The anode should be parallel to the surface and should be directly over it. The glass of the tube should be ten inches from the area to be treated. This is the ideal position. Variations from this position are frequently necessary, owing to the peculiar location of the trouble.

The tube-stand should have a lead shield attached which has adjustable diaphragms in its center, and is interposed between the tube and the patient. This tube-stand is not an absolute necessity, but a most desirable convenience. The perforation in the center of the diaphragm is placed directly over the area to be treated. Pieces of sheet lead are put around the perforation so that only the area to be exposed remains uncovered. When no shield is used, the patient has to be covered carefully with sheet lead (not lead foil), so that the X-rays can not impinge upon any part except the area which is to be treated. If the hand or arm of the patient is to be treated, the patient can sit on a chair and place his hand or arm on the table. Otherwise it is by all odds best to place the patient on a properly constructed table. The recumbent position is the most convenient and the most comfortable for both patient and operator. Always be careful to cover every bit of skin that is not to be exposed to the X-rays. The lead dressing is the most important part of the whole procedure, because it limits the action of the rays and in this way prevents X-ray "burns." The latter are not really burns. They are evidences of reaction, and if they occur in the right place have the highest therapeutic significance. Inasmuch as reaction is necessary, the cure in cases of morbid growths depend upon it. X-ray burns over large areas of healthy tissue are in the majority of instances due to faulty technique on the part of the operator. Exposures should be made in a darkened room, so that the operator can watch the phosphorescence of the tube, should be noiseless in order not to frighten the patient, and should be painless. The tube should be properly attached to prevent sparking. The operator should not expose himself unnecessarily, especially his hands and eyes. The deleterious effect of the X-rays on the procreative faculty of operators have been emphasized by many observers. A tube which has become hard from constant use should be allowed to rest a week or longer and then be softened. The employment of the regulating (softening or hardening) device on overworked tubes is not conducive to preserving the tubes.

Clinical Indications.

The triple action of the X-rays (stimulating, germicidal, destructive) should be remembered in adapting means to the end. The operator should have a clear pathological conception of his case before

he can attempt to make X-ray exposures intelligently. The X-rays are at their best in conditions where morbid tissue is to be destroyed and where the lesion is extensive and involves the subcutaneous tissues. The following list of diseased conditions probably represents the present status of the question, as suggested by the study of over five hundred cases which have been under observation during the past four years at the Cincinnati Post-Graduate School of Physiological Therapeutics. The directions given should be modified to suit the individual case.

Acne.—In the common form of acne the results are very good. Exposures every day or two for five minutes. Distance of moderately soft tube ten inches. Protect the eyes. In acne rosacea the results are not so uniformly good; the condition is likely to return.

Carcinoma.—Cancer of the breast does very well in the early stages. Treatment every other day with moderately soft tube for ten minutes, distance ten inches. Whenever the lesion is at some distance below the skin in this or any other kind of a case, the tube should be correspondingly harder to insure penetration. The results, of course, are correspondingly less certain. After the first stages of breast cancer, amputation is the proper remedy. It should be followed by X-ray treatment. In cancer of the stomach, bowels, rectum, or for that matter, any of the deep abdominal viscera, the X-rays, like all high potential force modalities, relieve pain and produce an alterant effect, thus prolonging life. I have never seen a case cured and doubt whether the reported cured cases of kind could stand critical analysis. I have known of pain to be relieved by the X-ray that resisted opiates of all kinds. Exposure should be at long range (fifteen to twenty inches) with a comparatively hard tube. Ten minutes every day or two.

Eczema.—In many cases of chronic eczema, especially the vesicular variety, the X-rays produce a cure. In nearly all cases they relieve itching and lessen or stop the discharge. Treatments with moderately soft tube for three to five minutes every other day. Distance five to ten inches. Constitutional treatment is imperative in all these cases. Locally, the high frequency current seems to be better adapted than the X-rays.

Epithelioma (common skin cancer).—It is nearly always curable by the X-rays, usually located in the face (lip, nose, angle of eye). Patient should be treated every day for from five to ten minutes. Distance of soft tube five to ten inches. If there is much induration of surrounding or subcutaneous tissue, vacuum of the tube should be somewhat higher. As soon as the induration disappears and conditions assume a healthy aspect, the addition of Finsen's actinic rays seems to accelerate the process of repair. Exposures should last from thirty minutes to an hour. In reality this is equivalent to using a force modality of less rapid oscillation and greater wave length in order to supplement the work done by more rapid vibration and shorter undulation. The Finsen treatment can be advantageously added to X-ray exposures as soon as the process of repair has begun.

Favus.—Two cases treated and both cured. Technique same as in treatment of eczema.

Hypertrichosis.—I have not been able to produce more than a temporary effect in these cases. Recurrence seems to be the rule.

Keloid.—Results were negative in three cases. Patients were colored.

Keratosis Senilis.—Results are good, especially if the excrescences are removed and the remaining denuded surfaces treated. Technique same as in the treatment of eczema.

Leukemia.—Results seem favorable, as shown by general improvement, and in a few cases by blood count.

Exposure over region of spleen with comparatively hard tube for ten to fifteen minutes every two or three days.

Lichen Planus.—Out of six cases two were cured, two relieved and two passed from notice. Technique similar to that of eczema.

Lupus Vulgaris.—In the hypertrophic form characterized by nodular enlargement and much contiguous involvement, the X-rays are superior to the actinic rays of Finsen, while the latter are preferable in the ulcerated form. Comparatively hard tube for five to ten minutes every day or two. In suitable cases the

X-rays are almost a specific. In the erythematous form of lupus (seborrhea congestiva) results have not been satisfactory. In two cases aggravation seem to follow X-ray treatment. The high frequency current seems to be the proper agent.

Mycosis Fungoides.—Results fair. Technique similar to that in the treatment of eczema.

Pruritus.—The neurotic form seems to respond very well. Three cases, two cured, one relieved. Frequent but very short exposures by means of a soft tube. The itching of many skin diseases is relieved by the X-rays.

Sarcoma.—Results uncertain and seem to vary in even apparently identical cases. Radio-therapeutic treatment should supplement surgical interference. One case of postnasal sarcoma which was operated upon and referred to me by a local laryngologist was cured.

Sycosis.—Results are good. Technique as in acne.

Tinea Tonsurans.—Results usually good. Technique as in acne.

Tuberculosis.—In the glandular form the results are good if the infected glands are not too deep. See technique under "cancer of the breast." In peritoneal tuberculosis I have seen temporary improvement general and local. Technique as in deep-seated cancer. Tuberculosis of joints responds favorably in many cases. If suitable, general and local treatment is added. Technique same as in cancer of the breast. Use a comparatively hard tube. Skin tuberculosis responds to frequent exposures with the soft tube. Technique as in lupus. In tuberculosis of the lungs, X-ray seems to be of doubtful value. The proper agent locally seems to be the high frequency current applied by means of the double resonator.

The best results in X-ray treatment are obtained in epithelioma of the face, in the hypertrophic form of lupus and in acne. In these conditions the X-rays surpass any and all other agents because they are painless, are almost specific in their action and serve an admirable cosmetic purpcse, especially in the common skin cancer of the face. The first and essential condition of success in the use of the Röntgen rays is knowledge of their physical properties and of the effects which they are capable of producing on organic tissue. Without any knowledge of this most important part of the subject, the art of skiagraphy becomes amateurish guesswork, the science of X-ray therapy a conglomerate of empirical notions. There can be no progress without logical elaboration of the principles that underly the work we attempt to do and the technique we adopt. *Sit modus in rebus!*

8 West Ninth Street.

[Written for the MEDICAL BRIEF.]

Vaginal Puncture and Drainage for Pelvic Abscess.

BY D. M. GIBSON, M. D.,

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Although the term "pelvic abscess" may not be a very definite one, it denotes a collection of pus within the pelvic cavity, more or less localized, and will serve to define this condition. As a rule, it is the result of septic infection, either gonorrheal, or from debris left within the uterus. The onset is oftentimes so gradual, and the local symptoms so obscure, that for a time the physician may be in doubt as to the exact nature of the disease. When once, however, localization of the swelling has taken place, and more particularly when fluctuation can be made out (fluctuation, however, is not always easily demonstrated), the case may be dealt with in a very satisfactory manner and by a very simple procedure, for it is a well-known fact that formation of pus, *i. e.*, the localization of the inflammatory products, is one of the happy, if not the most happy, terminations of pelvic inflammation.

The presence of pus is, of course, a prime indication for its removal, and although the patient may not be within range of hospital facilities, and although the practitioner may not have had great experience, operative, he can, nevertheless, handle this class of cases very satisfactorily and with but little danger.

The procedure is as follows: After the patient is anesthetized the neck of the uterus is caught with a volsellum forceps

and the uterine cavity explored. If there be any septic focus within which has not been previously removed, or if there is a purulent discharge therefrom, the uterus should be well cleaned either with the rinsing curette, or mopped out with iodoform gauze, and a small, loose iodoform gauze is left in the uterine cavity in order to provide for drainage, if it be needed. The next step is the most important one. The vaginal cavity is dilated widely enough to get a view of the posterior cul de sac, through which an incision is made with a pair of scissors close to the uterine body. If the abscess has gravitated low into the pelvis, the incision will be followed by a gush of purulent matter. If, however, it is located higher up the first incision may be followed by a dilatation with any suitable instrument, after which the finger is introduced and further dissection made by this means. If it be done carefully, there need be no danger of injuring the rectum, nor need there be any danger of injuring the important structures of the pelvis, if we bear in mind to keep close to the uterus while making this dissection.

If the pus be located on either side it will be readily found by the sense of touch of the finger within the cavity. The quantity of purulent matter liberated varies from a teaspoonful to a pint, and the smaller the quantity the more difficult it will be to find. In cases where there is no well-defined accumulation of pus, this opening-up process tends to shorten the duration of the disease.

After sufficient drainage has been secured, the track made by the instruments and the fingers, or the abscess cavity, if one be found, should be packed with iodoform gauze, five to ten per cent. This gauze packing of the cavity should be followed by another packing of the vagina. As a rule, there is but little shock and there is but little systemic disturbance, reaction from the operation is prompt and satisfactory. The gauze thus placed should be removed from the vaginal outlet within forty-eight hours, but that which is within the abscess cavity or drainage tract should be allowed to remain at least seventy-two hours, and no trouble will be experienced if it be left for twice that time.

It may be argued that this is not the most scientific operation, but it has the following points in its favor:

1. It is safe, efficient, and, if necessary, can be followed by a second operation, at much less risk to the patient.

2. It is easy of performance and does not require elaborate care afterward, and is within easy range of the general practitioner.

3. The results in the majority of cases are prompt and satisfactory, and most patients make a good and thorough recovery.

We are indebted to Dr. Pryor for advocating this most valuable operation, and while he may not have been the originator of the idea, he brought it prominently before the profession, and for this reason deserves due credit.

241 South Jefferson Avenue.

[Written for the MEDICAL BRIEF.]

The Non-Obstetric Uses of Ergot.

BY RALPH ST. J. PERRY, M. D., LL. D.,

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Ergot, like many other drugs, has suffered from the circumscribed enthusiasm of its friends, who rejoiced in the discovery of its usefulness in obstetrical work and lauded its use in such practice only, totally ignoring whatever value it may have in other fields. It has suffered because of the timidity of weak-spined practitioners, who, knowing of its capabilities as an abortifacient, have feared to use it in any except labor cases lest druggists, nurses or the blathering laity suspect them of illegitimate practices. It has suffered because of its abortifacient properties being generally known to druggists, nurses and the laity when its other uses were to them unknown. Under the circumstances, the demand for the promulgation of the indications of ergot, aside from its obstetrical uses, is timely. During over twenty years spent in active

general and special practice, ergot has been used by me for the following purposes:

1. To check hemorrhage.
2. To relieve acute local congestions.
3. To induce local anemia in chronic congestions.
4. To excite uterine contractions (non-obstetrical).
5. To check secretions.
6. To tone up and effect contractions in relaxation of muscles.
7. To reduce blood pressure.
8. As an astringent.
9. To excite inflammation with plastic exudation.
10. According to its "*methodus medendi.*"

My first uses of ergot were extra-genital. Before serving a week in the Indianapolis (Ind.) City Dispensary, to which I had been elected an interne, a man staggered into the office suffering from profuse pulmonary hemorrhage. While arranging him comfortably pending the anticipated call for the dead-wagon, the superintendent stepped into the office and directed me to administer hypodermically one drachm of fluid extract ergot. The hemorrhage stopped suddenly, and the trip to the morgue was exchanged for one to the hospital. My dispensary duties were such that no obstetrical work fell to my lot, yet many opportunities came to hand for testing the efficacy of ergot and its preparations along other lines, a desire which had been stimulated by my initial experience in its use.

Later on I was transferred to the Indianapolis City Hospital, and placed in charge of the obstetric and gynecological wards. One of the first cases coming under my care was a negro woman suffering from an uterine fibroid with hemorrhage. The consulting gynecologist was called in, and his eyes glistened as he palpated her abdomen. Said he:

"Doctor, take good care of her; feed her well, treat her the best you can, and when college opens up in the fall we'll have a clinic such as the boys seldom get a chance to see."

She was taken good care of, fed well and treated the best I knew how; and in that treatment came the temptation to try the effect of ergot. The professor's clinic was hopelessly ruined. When brought prominently into view by bimanual manipulation and carefully measured with large calipers this tumorus uterus was found to be five inches in width and extended six and one-half inches above the pubic crest. In administering the ergot, ergotin was used, one grain being given in the abdominal region daily. After two months of this treatment measurements conducted similarly to the previous ones showed a width of two and one-half inches and an extension of three inches above the pubic crest. No satisfactory intra-uterine measurements were taken at any time. This patient showed her gratitude in after life by sending me several cases of uterine growths for treatment without operation. One of these was a uterine polypus with very profuse hemorrhages, threatening the patient's life. For two or three years she had been treated for chronic anemia, phthisis and other wasting diseases, by several physicians, to none of whom had she mentioned the uterine hemorrhages because of fear of an operation. Lured by hopes of a cure without operation she told me her entire case history and was given the following treatment:

℞ Ergotin.....1 scruple.
Acid Gallic.....4 drachms.
M. Ft. Capsules, xx. Sig.: One capsule every four hours.

The effect was to stop all hemorrhage within a few days and to materially decrease the size of the polypus, which originally was as large as a clenched fist. The general health was re-established by suitable tonics and good food. Later the polypus was removed by the ecraseur. The causes of uterine hemorrhage are various, and amongst those of common occurrence are:

1. Simple menorrhagia, as a climacteric symptom.
2. Carcinoma.
3. Intra-uterine polypus.
4. Sessile fibroids.
5. Hyperplastic endometritis.
6. Fungous endometritis.
7. Laceration of cervix with endometritis.
8. Procidentia with laceration of cervex.
9. Procidentia with intra-uterine tumor.

10. Uterine fistulæ.
11. Atheromatous degeneration of uterine arteries and capillaries.
12. General muscular atonicity or flabbiness.
13. Traumatism.
14. Incomplete abortion.
15. Ectopic gestation.

The physician occasionally encounters cases in women over forty years of age presenting small uterine hemorrhages at irregular intervals after the cessation of the normal menstrual flow; small "spurty" hemorrhages, which are not dangerous, yet annoying, and which give rise to many fears in the minds of the patients. A thorough examination fails to reveal anything abnormal whatever, and the phenomenon must be looked upon as purely a climacteric symptom—the spasmodic effort of the uterus to relieve itself of a transitory congestion. In these cases ergot can do no good, unless the hemorrhage be prolonged for some hours or unless the flow be very heavy and depleting from the start, in which cases give one grain of ergotin hypodermically every hour or oftener, as the case requires.

In carcinoma the hemorrhage becomes a constantly present symptom after degeneration changes have brought about a breaking down of the organ. Here ergotin may be of use in preventing undue waste and in conserving the vitality of the patient, being given in capsule or tablet form with strychnia arseniate. The hemorrhage from intra-uterine polypi and sessile fibroids can readily be controlled by ergot, especially if combined with gallic acid, as mentioned in the case history just given, or with strychnia, hydrastine, or cinnamon oil. The hypodermic use is particularly efficient in sessile fibroids.

In hyperplastic and fungous endometritis, the two commonest forms of hemorrhagic endometritis, the internal use of the ergot preparations combined with local application of ergotin in the form of uterine bougies presents a fairly acceptable substitute for operative treatment. Many girls and young women suffering from hemorrhagic endometritis refuse to submit to any operative form of treatment; many of them go to physicians who do not resort to surgical methods, and here the physician needs depend upon purely medical treatments. A bougie which has proven valuable in my hands is:

℞ Ergotin .....2 grains.
Pulv. Dessic. Suprarenal Gland ....5 grains.
Gelatin Bougie Mass.....q. s.
M. ft. uterine bougie 1. Sig.: One bougie to be inserted daily.

These bougies should be inserted after having given such electrical or other treatments locally, as the case may call for. The gelatin mass used in preparing these bougies is made as follows:

℞ Gelatin .....10 parts
Aquæ Dist.....20 parts
Glycerin.....30 parts
M. Sig.: Over sand or water bath.

The remedial agents are incorporated while the mass is just thin enough to pour, and before "set." Internally there was given ergotin or fluid extract ergot in combination with such nutrient general tonics and uterine tonics or sedatives as seemed indicated by the individual conditions of the patient. What has been said of these anti-operative cases of hemorrhagic endometritis is also true of lacerations of the cervex complicated with endometritis, in procidentia with polypoid or sessile tumors. Where patients refuse an operation, do the best you can by way of palliation. Frequently when an operation is to be made, a short preliminary treatment of ergotin and its adjuvants will materially benefit the case and help insure a satisfactory termination. Occasionally one sees cases of metrorrhagia due to excessive flabbiness of the uterine muscular tissues, associated with a general muscular atonic condition. No other pathological condition is discoverable. These patients need ergot with adjuvants, and a course of general treatment calculated to tone up the entire bodily muscular system.

Hemorrhages due to trauma of the uterus are rare. Some years ago I attended a young woman who had fallen upon a fence post and a projecting spike had penetrated the vagina, wounding the cervix. Probably a dozen cases have been seen where hemorrhage was due to the misdirected efforts of ignorant persons to induce abortion by "opening the womb" with lead pencils, hat pins, catheters and other pointed objects. One case was seen where a diffident maiden had slightly

lacerated the cervex while masturbating with a Haarlem oil bottle. In only a few of these cases was it necessary to resort to ergot, and in those the effect was all that could be desired. In hemorrhages due to athermatous degeneration, the use of ergot may be combined with that of Trunecek's serum, the latter dissolving the lime deposits in the arterial coats. The hemorrhages of incomplete abortion and ectopic gestation come within the field of obstetric work and are passed over. In the long continued administration of ergot or its preparations in menstruating women the most acceptable plan is to give small, frequently repeated doses during the inter-menstrual period, and omit the dosage during the menstrual flow. The effects of the remedy upon the uterus are enhanced by strychnia, hydrastia, hydrastinine, gallic acid and cinnamon preparations. Should toxic symptoms develop (ergotism) they can be antidoted by tincture of *solanum nigra*, the common nightshade.

In uterine hydatids ergotin internally and locally has proved efficacious in checking their growth and starving them to the disappearing stage. Menstrual disturbances due to acute or chronic congestions of the uterine body or plethora are often amenable to ergot. Congestive dysmenorrhea has frequently been relieved during the acute pains by ergotin in one grain doses; the amenorrhea of plethoric women has been remedied by the same treatment. Hemorrhages from various extra-genital sources and causes have been and can be controlled by ergot. Pulmonary hemorrhages in tuberculosis and pneumonia are readily controlled except when the larger vessels are involved in the tubercular cases. Intestinal hemorrhages in typhoid fever, dysentery, ulcerations during the course of a chronic colitis, enteritis, proctitis or sigmoiditis, or from traumatism, can be checked usually by small doses of ergotin. In cases of gastric bleeding from ulcer, carcinoma or traumatism, whether followed by hematemesis or not, ergot is beneficial and is best administered hypodermically, thus relieving the stomach of any additional trouble through exciting digestive efforts.

In hematuria, whether due to cystic, ureteral or nephritic hemorrhages, a few doses of ergot will often correct the condition. When traced to the use of quinine, ergotin should be administered with the quinine if the latter can not be discontinued. In epistaxis, either acute or chronic; in those occasional hemorrhages associated with hypertrophic rhinitis in catarrhal affections; in tubercular and syphilitic pharyngitis and laryngitis, and in bleeding gums, ergotin and the other ergot preparations have proved efficacious.

In a few cases of cerebral apoplexy, where the hemorrhage was slow and apparently from small vessels, I thought the progress of the flow was checked by hypodermics of ergotin. While my experience in these cases has been limited, I believe it a measure worthy of trial whenever possible, one which can do no harm and may do much good. In future cases I would combine ergotin and the active principle of the supra-renal gland. Occasionally one meets a case of bleeding piles where the hemorrhage persists far beyond reason—more than the mere emptying of a pile tumor, and here the local use of an ergotin suppository and the hypodermic injection of ergotin will do much good. Quite often in surgical and dental work we encounter cases of hemophilia, or "bleeders," and ergotin has proved a satisfactory adjunct to local means in arresting and preventing undue loss of blood. Where a patient is known to be hemophiliac the operation can be preceded by a prophylactic course of ergotin with adjuvants. In the minute subcutaneous hemorrhages, purpurea hemorrhagica, I have found ergot to be of value, often completely checking the trouble. To relieve acute local congestion ergot has been tried with more or less success in acute pharyngitis. Some years ago a case of this kind was rapidly subdued by giving ergotin one-tenth grain every hour and spraying the pharyngeal mucous membrane every half hour with:

℞ Ergotin.....1 drachm.
Glycerin.....6 drachms.
Aqua Dist.....q. s.....1 ounce.

After four hours' treatment, the patient, a lecturer, went upon the platform and talked with comfort for two hours. In the amenorrheas of plethoric women and

girls and in congestive dysmenorrhea, ergot has many times done good by restoring the equilibrium and permitting the functions to take place in a normal way. The discomforts and dangers of cerebral hyperemia—headaches, mania, flushed face and congested eyes, threatened apoplexy, etc., can be abated and removed by small doses of ergot frequently repeated as needed. Conjunctivitis, blepharitis, ophthalmitis and facial erysipelas have all been subdued and ameliorated by ergot internally and locally. In whooping cough and hypostatic congestion of the lungs this remedy is of good repute, though one seldom used. Combined with strychnia, ergot and ergotin have been employed as remedies in several spinal affections, especially spinal myelitis and cerebro-spinal meningitis.

In the induction of local anemia where chronic congestion has existed, ergot has been successfully tested in nasal hypertrophies, rectal prolapsus, hemorrhoids, enlarged prostate, varicocele and varicose veins by the application of an ergotin ointment and the injection of ergotin or aseptic fluid extract ergot directly into or around the involved parts. The ergotin ointment used is:

℞ Ergotin.....1 drachm.
Lanoline.....4 drachms.
Benzoated Lard.....4 drachms.
M. Ft. Ungent.

The treatment of piles by the injection method has long been in vogue, and one of the popular and most successful injecting fluids is the following:

℞ Acid Carbolic, 95%.....1 drachm.
Glycerin.....2 drachms.
Fld. Ext. Ergot.....1 drachm.
Aqua Dist.....1½ drachms.
M. Ft. injection fluid.

In enlarged prostate the injection of a few drops of aseptic ergotin solution (equalling one grain of ergotin) was made directly into the substance of the gland and into the surrounding tissues, care being taken not to puncture the bladder or urethra. In varicocele an injection of aseptic fluid extract ergot is made into the connective tissues surrounding the mass of veins, without puncturing any veins, and in varicose veins similar injections were made alongside the involved veins; the object being to excite a contracting plastic inflammation as well as to secure the depleting effects of the ergot. In prurigo, erythema, urticaria, acne rosacea, eczema, herpes genitalis and herpes of the nipple, erysipelas, and many other forms of dermal congestion, the ergotin ointment has admirably aided in overcoming the disease. This ergotin ointment has proved especially good in my work as an application to frozen fingers and toes to prevent gangrene, and in cases where the local use of carbolic acid dressings had threatened a gangrenous destruction of the parts. In diabetes and exophthalmic goitre ergotin has proved beneficial. While practicing in West Central Africa, a favorite remedy for the splenic enlargements found in missionaries and traders suffering from chronic malarial poisoning was ergotin combined with arseniate of quinine. In metritis, endometritis and in uterine polypi and fibroid tumors, ergotin locally assists the anti-hemorrhagic action of its hypodermic or oral administration by inducing a local anemia.

In the treatment of uterine hydatids, polypi and sessile fibroids, the drug actions already mentioned are further aided by the proneness of the ergot to excite utrine contractions, thus tending to compress and expel the intruding neoplasm. This same excitement of muscular contractions has effected cures in many cases of small aneurysms.

The use of ergot to control secretions is one of its commonest outside of its obstetric uses. In controlling and decreasing the exhausting night sweats of consumption and other debilitating diseases, or occurring during convalescence from protracted acute fevers, ergot has long been a favorite. In galactorrhea and in drying up the normal secretion of milk after the death or removal of the baby, ergot has been successfully used for years. The secretions of the alimentary canal, from a too free flow of saliva to the pathologic secretions of diarrhea and dysentery, are amenable to ergot. In gonorrhea, ergot has had its chance along with the rest of the *materia medica*, and with some slight degree of success, though not sufficient to supplant other drugs; in gleet it has proved fairly efficacious in the bougie form combined with other remedies. In leucorrhea of the purely vaginal form, local applications of

ergot, either by tampon, suppository or painted directly upon the mucous membrane, have been of value.

In spermatorrhea the beneficial effect of ergot and ergotin is due not so much to their power to control the secretion as to the fact that ergot acts as a sedative to the irritated parts and also tones up the relaxed muscular conditions present. In other forms of muscular relaxation ergot has demonstrated its value. Its use in flabby uterus has already been commented upon. In prolapsus of the rectum, where there is relaxation of the sphincters, ergot is of utility; also in cardiac dilatation without valvular lesion. That ergot is of value in the atonic paralyses of the bladder and of the vesical sphincters every physician of experience can give personal testimony, especially as to cases of enuresis. Another valuable use of ergot in cases of muscular relaxation recently brought to notice, and which I have tested, is its hypodermic administration to victims of dipsomania, morphine, cocaine, chloral and similar drug habits, who suffer from a general systemic flaccidity. The ergot excites to contraction the muscles of the debilitated blood vessels in the affected organs, restores their vitality and is a most decidedly beneficial adjunct to the strychnia treatment usually employed in such cases.

In reducing the blood pressure ergot is beneficial in large aneurysms and in all forms of hemorrhage.

Ergot possesses an astringent action, and its alcoholic preparations a power to excite a plastic exudative inflammation. These two actions combined in the fluid extract ergot are utilized in varicocele and varicose veins, as just detailed; in the injection treatment of hernia, and in deficient penile erections, due to enlargement of the vena dorsalis penis. In hernia the injection is made directly into the evacuated inguinal canal, and in cases of deficient erectile power they are made alongside of the enlarged vein.

Like many other drugs ergot possesses a *methodus medendi*, as Roberts Bartholow used to put it, and upon close scrutiny of the therapeutic and physiological actions of the drug, it does seem remarkable that many of the symptoms produced by toxic doses are also cured by therapeutic doses. For instance, I have frequently with ergotin cleared up post-epileptic stupor in an hour or two in cases where it previously lasted for many hours and even days. Patients suffering from transitory, ill-defined dizziness, drowziness and stupid feelings, without any apparent cause, have been readily and rapidly relieved by one one-hundredth grain of ergotin every hour or two.

The photophobia and flashing, fiery dots that float before the eyes of the "lost manhood" victim, and those interaural noises known as buzzing, humming and singing, whether due to the too free use of quinine or to other causes, are easily eliminated from the patient's repertoire of troubles by minute doses (one one-hundredth to one one-thousandth grain) of ergotin frequently repeated.

Epistaxis, bleeding from the gums, enuresis and hematemesis are conspicuous evidences of the *methodus medendi* of ergot. That form of diarrhea in which the discharges are watery, slimy or bloody and accompanied by exhaustion—a condition bordering upon Asiatic cholera, has many times been corrected by ergot in minute doses. The curing of laryngitis and pharyngitis, the prevention of gangrene in frozen, scalded and burnt fingers and toes, and the amelioration of the painful itching, swelling and tingling in frost-bitten parts are all proofs of the dual action of this drug. So, too, with the various skin symptoms already detailed; the profuse, cold, clammy sweats; the purpura and congestions; all have been found in the manifestations of ergot poisoning—all have been cured by the proper use of ergot. This dual action of ergot, its *methodus medendi*, is a vast field for therapeutic investigation, one opening great possibilities to the student of today and one scarcely touched upon in the past.

In my general and special practice the exhibition of ergot was originally limited to the ordinary fluid extract and to ergotin. With later advances in pharmaceutical science came the physiologically standardized fluid extracts, alcoholic and ethereal, and the aseptic preparations designed especially for hypodermic use. Ergotinine has rarely been used, being practically unobtainable.

[Written for the MEDICAL BRIEF.]

A Plan for the Treatment of Eczema in the Hands of a General Practitioner.

BY A. RAVOGLI, A. M., M. D.,

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In a brief article it is impossible to enter into the debated question of the etiology of eczema. It is sufficient to consider it as a catarrhal inflammation of the skin, usually chronic, in many cases of an acute course.

In choosing a plan of treatment for eczema, it has to be taken into consideration the periods of its evolution. It is clear that a remedy which will be useful in an old chronic form of eczema will be irritant and injurious in an early acute stage of the disease. In consequence, the distinction of the eczema in acute and chronic is of great interest for the practitioner. In the same way it has not to be neglected the distinction of eczema in its erythematous, papular, vesicular, squamous forms, because it gives the key for the selection of the external applications.

In an acute form of eczema, when redness and swelling of the skin is associated with burning and itching sensation, usually a simple application of an absorbent powder, as talcum, rice, amylum with some oxide of zinc, or one per cent of boric or salicycic acid often repeated will answer the purpose. If there should be also some oozing, the powder will form a kind of paste and protect the excoriated epidermis, prevent the breaking of the vesicles, and the acute inflammatory process will gradually subside. In cases of eczema intertrigo, the natural folds of the skin must be separated with strips of lint or absorbent cotton.

In some cases the simple application of powder does not relieve the inflammation, and bathing with solution of two per cent of subacetate of lead or of aluminum are found useful to diminish the inflammation. But as soon as the purpose has been obtained it has to be stopped and dry applications resumed. In a general way moist applications macerate the epidermis, and for this reason are not so beneficial in eczema.

In these cases, as a sedative lotion, it will be found a mixture of calamine in the following proportions:

℞ Pulv. Calamin Prep. .....2 drachms.
Zinc. Oxid .....2 drachms.
Glycerin .....1½ ounces.
Aq. Rosæ .....1½ ounces.
M. Sig.: Shake the bottle before using.

This is applied on the surface with a camel's hair brush, or with strips of lint dipped in the lotion.

In cases of an acute eczema with deep excoriations, accompanied by abundant serous discharge and unbearable itching sensation, the use of the ichthyol in liniment form will be found beneficial in many cases.

℞ Ichthyol .....2 drachms.
Olei Amygd. Dulc. .....4 drachms.
Aq. Calcis .....4 drachms.
Aq. Rosæ .....1 ounce.
Glycerin .....1 ounce.
M.

This is applied on strips of lint saturated in the liniment, and the dressing is changed twice a day. Ichthyol cornifies the young epidermic cells of the corpus mucosum and forms a temporary protection to the papillary layer. It diminishes the exudation and relieves the itching sensation. The surface is washed with a mild solution of one per cent of carbolic acid or of borate of sodium before the liniment is applied again. Cleanliness is necessary for eczema, and it has to be greatly reproached by some kind of superstition spread by general practitioners amongst the people, that eczematous surfaces have not to be washed. On the contrary, eczema has to be cleansed as stated, and if the water should be irritant for awhile could be resorted to the olive oil.

When the excoriations begin to heal up and the irritation has ceased, it is necessary to apply some mixture, which may protect the young epidermic cells, giving them time to be reproduced; may prevent the exuded serum to form crusts, and, at the same time, may possess certain antiparasitic properties. For this purpose pastes are applied as continua-

tion of the treatment. Lassar's paste is very useful and a good composition:

℞ Acid. Salicyl. .....10 grains.
Zinc. Oxid ..... 2 drachms.
Amyl ..... 2 drachms.
Vaseline..... 1 ounce.

To this mixture we often add one drachm of sulphur, which has good antiparasitary action. It is spread on the affected parts, and is easily removed, wiping it off with a little olive oil.

In cases of pustular eczema of the scalp or of the beard, a salve with white precipitate has given us good results.

When the inflammation has subsided, the excoriations and the fissures have healed up, the infiltration has diminished, then the application of tar becomes useful:

℞ Unguent. Picis Liquid .....3 drachms.
Zinc. Oxid.....1½ drachms.
Unguent. Aq. Ros.....4 drachms.

In a great many cases the old Wilson salve will be found greatly beneficial. Sometimes it seems that every application increases the trouble, and a few applications of this innocent salve have given very satisfactory results.

When the eczema has healed up, but the skin remains tender, itchy, easily cracks, the application of a solution of carbolic acid is very beneficial.

℞ Acid Carbolic.....1 drachm.
Glycerin.....1 drachm.
Aq. Rosæ.....3 ounces.
Alcohol.....3 ounces.

With a moist cotton tampon the skin is gently rubbed, then dried and dusted with rice or amylum powder.

It is necessary that the local treatment of eczema be associated with an hygienic and internal treatment. For this purpose the physician must study the condition of the general system of his patient and also his habits of living. In so doing he will detect troubles of the digestive organs, of the excretory functions, or of the general nutrition, or of defective metabolism, or of dietetic errors, which often are the true causes maintaining the eczema.

In chronic forms of eczema, when the skin is thickly infiltrated, hard, inelastic, covered with hard epidermic scales, which conceal deep rhagades, the treatment must be rather of an irritant nature, so as to be able of producing the reabsorption of the exuded elements. The soap of potash, green soap, finds good application to dissolve and remove the epidermic masses, and as an irritant to produce the reabsorption. It is rubbed on the surface, left for ten minutes or more, and then is washed off. As permanent application the old Hebra diachylon in some cases, mixed with ichthyol one drachm to one ounce has given gratifying results.

In cases of this kind, if the green soap does not produce the desired effect, we can resort to a strong solution of caustic potash soda to remove the thickened epidermis. The rhagades must be touched up with a solution of nitrate of silver from three to six per cent to obtain their healing.

5 West Eighth Street.

[Written for the MEDICAL BRIEF.]

Tuberculosis From a Hygienic Standpoint.

BY E. L. MCGEHEE, SR., M. D.,

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The prevention of tuberculosis is a medical and social problem which all humanitarians should consider. Since Koch discovered the tubercle bacillus in 1882, we know that this bacillus must enter the body to produce the disease, hence, it is communicated and not inherited. It is to our company and not our antecedents that we are indebted for this disease. The tubercle is an effort on the part of Nature to segregate and destroy the germs; in many cases the surrounding tissue breaks down and is replaced by scar tissue in cases that recover. Tuberculosis, which is responsible for one hundred and fifty thousand deaths annually in this country alone, may affect any part of the human organism—bone, brain, lungs, bowels, etc., etc. It is probable that under ordinary conditions of city life that tubercle bacilli gain entrance from time to time into the body of almost every individual. In most cases the human organism is able to overcome and destroy the invading microorganisms, but under special conditions, hereditary predisposition, unhygienic surroundings, disease, dissipation, overwork, worry, any condition, in fact, which

lowers the vitality, permits the disease to gain a hold. The nature of "predisposition" is not well understood. Simply "the soil is favorable."

Tuberculosis prevails especially during early adult life. The micro-organism is breathed, swallowed or absorbed by the skin as through an open wound. It is safe to say that in most cases the bacilli enter the economy through the nose and mouth during respiration. The bacilli are spread chiefly by the sputum expectorated, or sprayed in coughing and speaking.

It is possible through the combined efforts of a wise government, well-trained physicians, nurses, and intelligent people, to not only prevent the spread of this disease but eradicate it.

The results are so terrible and far-reaching that no effort should be omitted to bring about a lowering of this appalling death rate. The economic effects of tuberculosis must be taken into consideration. The earning capacity of the patient is at an end, and statistics show that fifty per cent of those afflicted are upon charitable aid. About twenty-five per cent die in charitable institutions. Nor does it end here. The father dies, his support is cut off, the children's education must be stopped, they must work to support the family.

How can this disease be prevented?

Statistics show that in those States where suitable sanatoria have been erected, and where an active campaign is carried on against the scourge, a noticeable decrease in the death rate has followed. In New York in two years the death rate has decreased from twenty-five to twenty-one per cent; in Boston, in the same period, the decrease has been two per cent, while in Baltimore, where there has been no such activity in stamping out the disease, the increase has been three per cent in two years.

There should be a special ward for tuberculous patients, in every hospital, or better still, a building completely isolated. As an instance, the North Texas Hospital for the Insane, located at Terrell, showed a percentage of thirty-three per cent of deaths from tuberculosis. After adopting the isolation method for one year, the percentage was twenty-four per cent, the following year 23.3 per cent.

A proper enforcement of the spitting ordinance, combined with instruction of the general public as to the mode of propagation and sanitary measures to prevent spread, are essential.

Compulsory notification to health authorities of the existence of every case of tuberculosis.

Disinfection of premises vacated by consumptives.

These, with the isolation method in hospitals, and proper sanatoria, are the best measures we can hope for until our State legislatures and municipal authorities awake to the importance of combating this disease.

Hurst and Webster Streets.

[Written for the MEDICAL BRIEF.]

Who Is Competent to Administer Anesthetics?

BY L. S. COLTER, B. S., M. D.,

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The condition of complete general anesthesia is one of the most grave of human life. So closely does it approach the boundary line between life and death that it is truly astonishing how near we approach that border, and yet so rarely cross it. This being so, it should not be necessary to state that only those skilled in the use of these deadly agents which abolish completely all sensibility, should be entrusted with their administration.

While it is our belief from observations of recent years that the profession in general are beginning to realize the importance of intrusting the administration of an anesthetic only to one who is an expert in the handling of these agents, yet we know that in many instances the necessity is not appreciated, and that too often the medical man with the least experience is the one entrusted with this great responsibility. As an instance, I quote the case of a medical student who started to read medicine in the office of a prominent practitioner, whose office was located in a part of the city where almost every house for several squares had a physician's sign attached to it. Very early the services of this student were in demand by

many of the physicians in the neighborhood, to assist in surgical operations in the capacity of anesthetist, as it was not presumed he was sufficiently fitted by skill and experience to sterilize and handle the instruments. Many an abdominal section, amputation, bone resection and other operations, both of major and minor character, were done under this same anesthetist. Infants a few weeks old, and patients long past the Osler chloroform age, those weakened by long periods of suffering, suppuration, sepsis, hemorrhages, etc., alike came under his care. The good Lord must certainly have been kind to these patients, for not one of them died from the anesthetic, and this seems the more remarkable when in every case chloroform was the agent used. The early experience of the writer in administration of anesthetics has proved very valuable to him in later years. The knowledge thus gained and still further added to during experience in a large hospital finally led him to be regarded as one specially adept in the handling of these agents. In the past fifteen years the writer has administered the anesthetic in over four thousand cases. Familiarity in the use of these agents, however, has not bred a contempt for the dangers involved, and it is with far greater fear that he undertakes the task began as a medical student.

From his long experience the writer believes that the all too common practice of intrusting the administration of chloroform and ether to the most recent graduate, to say nothing of turning the task over to a student or nurse, is to be strongly condemned. There are danger signals to be recognized that nothing short of considerable experience will detect. Of course, this experience can not be gained without at some time assuming the risk of administering his first anesthetic, but the point we wish to emphasize is that one should be very carefully instructed in the administration of these drugs before being intrusted with the lives of patients who must subject themselves to some operative or other procedure requiring an anesthetic.

For some years the writer, in his college work, has been attempting to instruct students in the handling of anesthetic agents, and he has found it exceedingly difficult to impart the requisite knowledge by didactic teaching. The only satisfactory method is for the teacher to stand beside the administrator of the anesthetic and to point out the danger signals as they arise, to indicate what symptoms call for an additional amount to be used, and which indicate the withdrawal of whole or part of the agent. There are many symptoms which must be taken in their entirety in order to know the proper course to pursue.

The laity at the present day are beginning to recognize the importance of having a skilled assistant to administer the anesthetic; the fact is being brought home to them that the surgical operation of itself is not likely to kill the patient, but that the anesthetist, on the other hand, has the patient's life under his thumb, and that he may, by giving too much, or failing to recognize danger signals, send the patient into an eternal sleep. The public has a right to demand protection in this respect, a right which in the past has not always been accorded. Today the usefulness of the anesthetist is gradually being recognized, and a skilled and experienced man is always in demand. Lastly, he should be paid a fee commensurate with the grave responsibility that he assumes, for the task which he undertakes is without doubt in many cases far more serious than that of the operator.

3410 Clifton Avenue.

[Written for the MEDICAL BRIEF.]

Concerning the Surgical Treatment of Gall-Stone Disease.

BY RICHARD WARD WESTBROOK, M. D.,

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Considerable difference of opinion prevails at the present time regarding the proper treatment of gall bladder disease. Surgeons will advise early operation, while the medical practitioner will often be equally positive in recommending treatment, which in the end can only be preventive or palliative.

The gall bladder is not an indispensable part of the economy. But it is the breeding place of gall stones, and it gives rise to almost as much chronic disease and disability in adult life as the appendix. We may extirpate the appendix, as it is a functionless part and better out than in, but not so the gall bladder, which is a functional and continuous part of a system of bile ducts of wide extent. To the surgeon the gall bladder is a natural drainage tube. In the surgical treatment of gall-stone disease, the *drainage* of an infected biliary tract is what we aim at; the removal of the gall stones is of secondary importance, and is done to insure a radical cure.

Nowadays a great deal is said about drainage of the hepatic duct with removal of the gall bladder—a formidable procedure. The same object may be accomplished far more simply and safely by drainage, by leaving the gall bladder, opening its fundus, inserting into it a rubber tube held by a purse string suture, and thus guiding the infected bile outside the body. If done in this manner the fistula will close in two or three weeks and the stones will not reform. When the gall bladder may no longer serve this purpose as a drainage tube in the hands of the surgeon, that is, when for any reason bile will no longer flow through its cystic duct to the outer world, it were better extirpated.

The cystic duct at times may be closed by stones which cannot be readily removed, or by stricture, or by the kinking of adhesions. A gall bladder shut off only remains to make constant trouble. If, then, in a word, we find bile present in the gall bladder, retain it; if we find no bile present, remove it.

The so-called "ideal" operation of opening the gall bladder, removing the stones and closing it up by suture, is no longer considered good surgery. Whenever gall stones produce symptoms, such a gall bladder is infected. The gall stones were originally the result of a mild microbic invasion of the gall bladder, due to no fault of the bile itself and often occurring in typhoid fever. Such an invasion may die out and the stones remain latent in the gall bladder, producing no symptoms, but through a mechanical irritation of the gall stones we have a favorable condition for re-infection to occur. And the pain and inflammatory symptoms of gall stone disease are the result of this re-infection or blazing out of a smouldering infection.

Therefore, the "ideal" operation in gall stones producing symptoms is illogical in that it eliminates only one offending factor and leaves the chief element of danger, the infected biliary tract.

1145 Dean Street.

[Written for the MEDICAL BRIEF.]

The Value of a Negative vs. a Positive Diagnosis in Vesical Calculus.

BY M. L. HEIDINGSFELD, PH. B., M. D.,

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J. K., aged forty-eight, came under my observation in June, 1898, with symptoms of obscure urethritis of some ten or fifteen years' duration, dating back possibly to an old gonorrheal urethritis of some fifteen years' standing. Patient had been under the care of a number of physicians and without any beneficial results. Careful examination at the time revealed, by means of a searcher, the presence of a vesical calculus., This diagnosis was confirmed by a cystoscopic examination and a stone the size of a hazel nut determined. The patient was advised to have same removed by means of an operation, lithotomy or lithotripsy, as indicated upon the operation table. The patient was a lawyer, who was about to take his summer vacation, and asked that operation be deferred until his return early in September, to which arrangement the writer readily acquiesced. The patient failed to return at the appointed time, and when casually seen during October or November of the same year, he stated that he had been examined by four or five eminent surgeons and physicians since that time, and was informed by all, with one exception, that no calculus was present and that operative interference was entirely contra-indicated. One physician, who did not interest himself to the degree of making a personal examination, stated to the patient that if a calculus was detected by the searcher and confirmed by a cysto-

scopic examination, it was unquestionably present and should be removed.

In July, 1905, during which interval obscure symptoms on the part of the urethritis (bladder symptoms having been continually absent), the patient came under the observation of a physician, who again confirmed the diagnosis of vesical calculus.

At this time the patient consented to an operation, and a calculus the size of a hen's egg was removed.

This case is of interest in reference to the importance of a positive diagnosis of this character over a negative one. And, second, that vesical calculus can be present when the ordinary clinical symptoms are apparently absent.

A case of obscure simple urethritis should not be passed over with an examination limited to the urethra, and attention to the male genitalia in obscure cases should be made as complete as possible.

This case also demonstrates that the physician is sometimes placed in an uncomfortable position, not to say in an unfavorable light, by the unjust sneers and scoffs of his confreres when his position is clearly a correct and proper one, and that a positive diagnosis in almost every condition, whether it is vesical calculus or otherwise, should never be passed over without the most careful, painstaking and scrutinous examination.

For a period of six or seven years this patient experienced a sense of skepticism, not to say of distrust or lack of confidence in his examining physician, and all without cause, as subsequent events have justly demonstrated.

19 West Seventh Street.

[Written for the MEDICAL BRIEF.]

An Interesting Case of Adenoma.

(Illustrated.)

BY RHETT GOODE, M D.,

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Mobile, Ala.

The interesting features of this case are the unique appearance of the tumor and the neglect to make an examination in the recumbent posture. The cuts taken from photographs show the general form and shape of the tumor, and also the appearance of the part after recovery from the operation.

E. S., colored woman, aged fifty years, presented herself for examination, suffering from a tumor located on the right buttock. On the first examination the tumor was found to be hard, firm, and the surface was marked with enlarged veins coursing over it. It was considered to be of a very vascular nature, and appeared to be firmly attached to the bone.

The history of the case was that it had been growing slowly for a period covering four years. It was decided to operate upon this case and extensive preparations were made to arrest hemorrhage, and for

this purpose long needles, such as are used in amputation at the hip joint, were in readiness. A difficulty was anticipated in removal of the growth on account of the anticipated hemorrhage. At the time of the operation, after the patient was placed on the table, and the tumor was lifted, held, and elevated into position for some time, allowing the blood by pressure to pass out of the tumor, which was found to be freely movable, so much so that an Esmarch rubber bandage could be placed around its base, then an incision was made into the tumor, and very much to our surprise it was found to be a simple

adenoma. The operation of removing the tumor was performed with no difficulty,

only a few small arteries necessitating ligature, and the patient made a rapid

and uninterrupted recovery, being confined to bed only ten days.

58 St. Emanuel Street.

[Written for the MEDICAL BRIEF.]

Lessons Learned from 1905 Yellow Fever Epidemic.

BY GEO. H. TICHENOR, A. B. (TULANE), M. D., (TULANE).

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QUARANTINE REGULATIONS—LACK OF UNIFORMITY.

The lack of uniform quarantine regulations between the States and ignorance of local health boards regarding the mosquito theory, proper health certificates, proper fumigation and sanitation, screening houses and cisterns and oiling of pools of water and cisterns together, in some instances, with the total disregard to the laws regarding quarantine and the establishment of shotgun quarantines has terrorized the public, prevented physicians and nurses from attending the afflicted in a satisfactory manner, has been a means of spreading the epidemic by lack of proper precautions and thoroughly convinced the public that war may be hell, but there is no doubt about quarantine, under present conditions, and a need for uniformity of regulations and their enforcement.

HEALTH OF NEW ORLEANS.

Yellow journalism has had ample opportunity of exaggerating accounts concerning the distress of infected districts and make it seemingly appear that the people were dying like flies, particularly in New Orleans. Whereas, the truth of the situation is as follows: In the next thirty days from to-day (Sept. 21st) the fever will be practically over, and the deaths will not probably exceed, at present ratio, more than four hundred and forty-five, which is the same as our annual deaths from pneumonia in 1903, and has in some years run as high as six hundred and seventy-four. The biennial report of the New Orleans Board of Health shows that in 1903 the deaths from tuberculosis were one thousand and one; heart disease, six hundred and fifty-one; Bright's disease, six hundred and eighteen; diarrhea, four

hundred and sixty-five; pneumonia, four hundred and forty-five; the total deaths from all causes amounting to six thousand seven hundred and fi[illegible]. The mortality of the white population of the city in 1904, exclusive of the Charity Hospital, was only 12.73 per thousand. To the physician these statistics prove conclusively that New Orleans is not such a death trap as she is frequently spoken of and will recall to his mind that the salt in the soil and ocean breezes are the chief factors in disinfecting her filth and promoting health.

Again, I venture to say that statistics will probably show for the next year, notwithstanding the deaths from yellow fever, the total deaths for one thousand of the white population of the city will be much less than that of many of our large cities, simply due to above stated facts, and also that these statistics prove we have mastered the disease and can institute proper precautions to stop its spread.

I am optimist enough to believe that the American people will waste no time in securing uniform quarantine regulations when these facts are known and they get over their fright. Then, and not until then, will trade be enabled to go on without interruption, as it is now being conducted in Germany with present cholera epidemic, and the afflicted properly cared for, and proper precautions instituted to stop its spread.

Mosquito Theory Proven.

Facts have been brought to light during this epidemic which are undeniable evidence of the correctness of the mosquito law under which we have been working.

Dr. White, of M. H. S., furnishes the following instances: "There occurred in the State of Mississippi a case of yellow fever at Lumberton on the 19th of July, in the person of a refugee from New Orleans. This case was not known until the 29th, but, nevertheless, with regular precautions, it was obliterated, and there has been no case at Lumberton since." "There was also a case at Summerall, Miss., near Lumberton, discovered only after the case had convalesced; same measures taken, and the same results occurred in either place, thus assuring the success of the undertaking." "In Louisiana, Dr. Corput found about eighteen cases at Reserve plantation, and, having the backing and confidence of Mr. Godchaux, he established a hospital, moved in all the cases, disinfected all the houses, with the result that the infection was obliterated in fifteen days, no cases having occurred on that plantation since." "This was again shown with the Peters avenue and St. Ann street focus in New Orleans."

The following are instances in my own experience:

The infection at Bon Ami, La., was due to a dago arriving there secretly and mingling with people while sick. After the proper number of days had elapsed three cases followed, all Italians, subjected to the infection by living in the neighborhood of first case. Several physicians besides the local physician pronounced the cases yellow fever before my arrival. On my arrival I found that Drs. H. Z. Barnett & Son, local physicians, had burned the houses the dagoes died in, and had moved them out of the town limits, and all the Italians were quartered in tents. A thorough fumigation of every house was begun, every pool and cistern oiled and screened, and every house properly screened. The fumigation was kept up until danger was passed—that is, twenty days after last case.

I may say here, by way of diversion, that I have found in cases where it was difficult to stop up the cracks in houses, it is best to use pyethrum powder first, which overpowers the mosquito quickly, and then sulphur; because, if you use sulphur first, it will drive the mosquitoes out of the house. In the open air tar barrels and waste pine lumber burnt around a house will drive them very effectually away. The waste lumber was burnt every night on the edges of the town to keep the mosquitoes out of the town, as the place was surrounded by the piney woods and on slightly rolling ground, and my experience in observing the habits of the mosquito was that they did not migrate, but would be blown by the winds a distance of a number of miles. I have noticed stegomyiæ blown out at sea the distance of fifteen miles, and I have observed prior to their coming that there was not a single mosquito on the ship. I have noticed them several times when the ship was closer to land. Coming back to our

subject—the Italians were placed into two camps, one at each end of the town; their temperatures were taken twice a day; finally, after the proper number of days passed, a case of an Italian boy, son of the Italian who died, developed symptoms. He was immediately screened at first rise of temperature and put in a house isolated from the detention camp in which he had been. The result was that no other cases developed in either camps or town and the boy got well. The people in town were requested to put a mosquito bar over them with the first rise of temperature from any cause and to send for a physician. This was the only case which occurred at Bon Ami after isolation, and the fever was promptly stamped out. The prompt and energetic assistance in every instance of Mr. H. Smith, manager of King-Ryder Lumber Company; the valuable assistance of Drs. Barnett & Son, together with the prompt co-operation of Dr. D. C. Isles, President Calcasieu Board of Health, and his board, enabled me to stamp out the fever at once, which would have been a very difficult undertaking, considering that Bon Ami was a lumber town of twelve hundred population. The record of only one case after four had died of the fever prior to my arrival, shows what can be done under present system. This instance shows by contrast a great difference with that of the Tallulah situation. I arrived at Tallulah on September 5th, and stayed seven days. The place had not been properly fumigated, oiled and screened, and the people, in my opinion, did not and would not accept the mosquito doctrine. Finding a lack of satisfactory co-operation with local health authorities, although I had that of Dr. Gaines, parish health officer, who did all he could to aid me in my work, and the disease rapidly spreading, due to the fact that some people would not screen, oil and fumigate properly, after a stay of seven days, in the meanwhile organizing two hospitals and starting similar organizations to those in effect in New Orleans, I requested the board to be recalled, for above stated reasons. It is a well-known fact that Tallulah had twenty cases on my arrival, and, perhaps, between fifty and sixty on my departure, and when Dr. Von Ezdorf, of M. H. S., arrived two days later he found that the infection was all over town, as I had reported, and he immediately began a thorough fumigation, but he was too late. Notwithstanding his efficient service rendered good work with skilled fumigators, which I did not have, the infection, as he later reported, had spread to adjoining plantations. I had found a case at Omega, thirteen miles from Tallulah, prior to his arrival.

After leaving Tallulah, I was sent by the State Board to Berwig, and resided on J. N. Pharr & Son's plantation. On my arrival I was called in consultation with two local physicians, Drs. Berwig and McLellan, and we pronounced the case yellow fever. The local health board enforced rapidly the quarantine regulations according to the mosquito doctrine, and not a single case developed after this one.

I instituted the precautions against yellow fever according to the mosquito doctrine and not a single case developed on the Pharr plantation under my supervision. The Pharr Brothers spared no expense and time in lending me assistance.

1435 Polymnia Street.

[Written for the MEDICAL BRIEF.]

An Age That Craves a Stimulant.

BY PATRICK T. MELDON.

An Experimental Medical Scientist.
San Bernardino, Cal.

This is an age of extreme mental activity, and its increase is so great one can expect the child to have more mental and less physical forces than either of his parents. An active mind consumes the physical forces—the source of its own sustenance—and then craves for a stimulant; tobacco was found to stimulate the mind, and is now the most used for that purpose; coffee and alcoholic liquors come next.

Tobacco is set down as a narcotic, and is, when medicinally used, but when its use becomes a habit, particularly in smoking, its effect is the opposite—very often inducing wakefulness to the extent of insanity. It is used, as every one knows, almost entirely in smoking and chewing. One man will smoke and another chew, as a matter of choice—the choice made being always subject to an instinctive desire of

the mind. Smoking is preferred by those who are mentally active, and chiefly by those who have more mental activity than mental capacity. Large, clear minds are seldom in need of a stimulant—they are masters of thought and of work without it.

Chewing is preferred by those who have sluggish digestive organs and slow mental action.

Mental activity is everywhere on the increase, and so is smoking—the former desires the latter. The stronger the nervous tension and mental endurance the stronger the tobacco and the greater the quantity required for the smoker. The Irish are the only race of people strictly specialized in their use of tobacco; they are smokers. Other nationalities smoke it and chew it, and some of them use it as snuff.

Tobacco reduced to the form of smoke is most readily absorbed by the brain, and in that form it affords its best and quickest stimulant; it is readily diffused throughout the entire nervous system, but its effect is woefully bad. It always tends toward shattering the nerves, and never fails to irritate a nervous disorder of any kind; it acts severely on the heart, and very often terminates fatally. It weakens the cardic muscle, impairs the circulation and causes the lungs to congest; the result is a low, stiff, hacking cough, and, even in very hot weather, waves of cool sensations are felt passing up and down the spine, particularly between the shoulderblades. The shoulders incline forward; the step becomes weak, unsteady, and the heels trudge and scratch the ground.

The cigar and pipe is the safest way to smoke tobacco; the smoke from either one is too strong to inhale and send direct to the brain. It must first be brought in contact with moist glands that somewhat refine the smoke. Those glands absorb, dissolve and eliminate a certain per cent of the nicotine.

The cigarette is the most deadly way that tobacco can be used. It affords a comparatively light, fresh smoke, that can be endured while drawing it into the lungs and forcing it out through the nostrils. The smoke of the cigarette, containing all of its raw and irritating nicotine, is then sent direct to the vital tissues of the lungs and brain—the result being a weakened heart, impoverished blood, nervous irritability, imbecility, or a certain form of the insanities.

Only recently the writer met with a man who had been an inveterate cigarette smoker for years. He was suddenly taken with a dull pain in his left ear. This was soon followed by a copious discharge of a lymphoid tenacious fluid that had the ill-fetor of tobacco in remarkable concentration. The discharge left that ear permanently deaf; and the only reasonable conclusion reached was that the auditory sac had for a long time absorbed the nicotine, while its irritating effect diseased the wall of the sac and caused it to burst.

Tobacco will aid digestion when its use is commenced for that purpose, but it will impair the digestive organs when its use is commenced while they are in a healthy, or normal, condition. Chewing has by far the strongest effect on the digestion, and yet smoking is best adapted to the case of some individuals.

Finlanders are known to scrape the granulated nicotine from the wall of pipes and not only chew it but actually swallow it; some of them even crave for such a deadly poison. One should expect its effect to be deadly, and yet it merely stimulates in them a sluggish digestion and an appetite that is more than the ordinary.

It is generally supposed that tobacco remains in the system for years after its use is discontinued. That, on account of its solubility, might be questioned. But, then, the appetite that it cultivates and its ill-effect on the nervous system usually perseveres for years.

Coffee and the smoking of tobacco have about the same effect on the nervous system, except that a long conntinued use of the former so often ultimately impairs the digestion.

Alcoholic liquors afford the most rapid and direct stimulant that the mind can risk to continue, as men continue stimulants through time. Its fluidic, gaseous and aromatic properties adapts it to instant absorption. It deeply impresses the vital tissues, softens their texture and in a short time brings down the whole structure in a mass of ruins. Its remarkable gaseous nature suffocates the mind, or sus-

pends its influence over the body and leaves its victim in a helpless condition. This is technically called "drunk" when the case is a man and "paralyzed" when the case is a woman.

Women have strong desires for stimulants—probably stronger desires than men—but their finer sensibilities are the fortunate cause of their avoidance of tobacco and alcoholic drinks. They tried gum probably as a stimulant, but as it did not have the desired effect the woman that chews a cud is now seldom met with on the street. Coffee is their favorite stimulant, and it is to be hoped that nothing worse for them will ever cross their path. It brings on indigestion, has a wrecking effect on the nervous system and induces a petulant disposition that is hard for others to endure.

What a miserable world this would be should women fall into the line of using all kinds of stimulants as do men. Coffee is already beginning to show its bad effect upon them. We very often hear a woman growl about her coffee; her grocer cheated her on her coffee; he gave her bad coffee, adulterated coffee—a mixture of burned bread and coffee; or she forgot to buy her coffee when there was nothing but coffee on the tip of her tongue. Men growl at their wives because they do not find a cup of strong, hot coffee when they come in; some one ought to enroll the coffee drinkers that apply for divorce.

It is a hard thing to convince some people of the ill-effect of that which they like best; both men and women will deny the bad effect that coffee is having on them, and yet, as a result of coffee, they never tire in telling us about their ills, real and imaginary.

It is generally supposed that a man can quit tobacco if he has the will power to do so. Men have done this—"apparently," but there must have been more in the want of a strong appetite for the drug than there was in the will power that quit it. When a man has long habituated himself to a stimulant, the stimulant is all there is to his will power; he must have his stimulant to give him nervous energy, or will power, in anything.

If you will have an inveterate user of tobacco quit it at once, you can look for one or two results; the man will likely grow sleepy, stupid and fat, but he is most likely to go mentally erratic.

A gradual weaning off tobacco or off any stimulant is the safest and best way to quit it. It is apparently harder to quit smoking than it is to quit chewing tobacco. The smoker should learn to smoke slowly and go considerable of the time with the unlighted pipe in his mouth. He should go out intentionally without his pipe and pass all the time he can afford in the presence of those having finer sensibilities. And if he will make it his rule never to use tobacco in the presence of a woman—no matter how familiar he is with her—it will do much to wean him off the drug.

The awful increase in the use of tobacco bids fair to vitiate if not exterminate the entire human family, for, as a last remark, men suicide in smoking to a late hour at night, and especially before their morning meal.

Treatment. The following prescriptions are only tonic drinks, but they will aid a man in weaning himself off a stimulant and also promote recovery from its ill-effect. The prescriptions should be alternated with one another about every week:

℞ Sparteine Sulphas.....1/6 to 1/4 grain.
Citric Acid.....2 grains.
Saccharose.....2 drachms.
Aquæ.....4 ounces.
M. Sig.: To be taken in one dose three times a day.

℞ Dil. Phosphoric Acid.....30 drops.
Citrated Caffeine.....1/4 grain.
Saccharose.....2 drachms.
M. Sig.: To be taken in one dose three times a day.

These prescriptions are best taken between meals. And as they should be mixed at the time of taking them, it will be best to let the patient have the drugs and instruct him how to mix them. Tincture of nux vomica in medicinal doses is also a very useful remedy in the treatment of those cases.

[Written for the MEDICAL BRIEF.]

The Cause of the Tides.

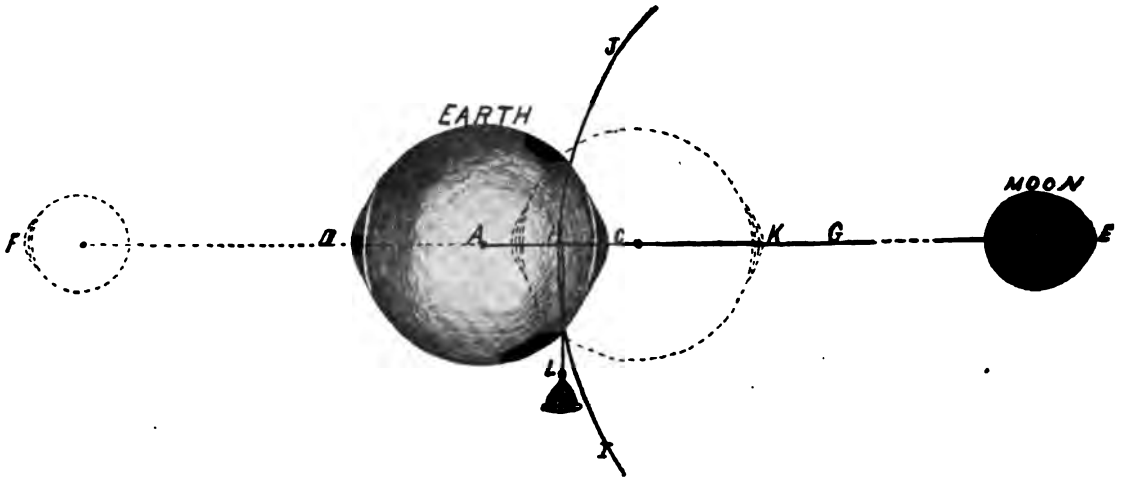
BY E. R. ELLIS, M. D.,
Detroit, Mich.

In several recent numbers of the BRIEF writers have sought to persuade us that "the tides" have a great, if not decided, influence in determining the sex of the human race. Without having any definite

knowledge or expressing an opinion thereon, I would like to convey to the readers of the BRIEF a new idea as to the cause of the tides, especially that which occurs on the opposite side of the earth from the moon. This, I believe has never been explained in a philosophical or understandable manner. And as physicians are in a high degree teachers, they might well be in a position to give light on this heretofore obscure subject.

That it is the direct attraction of the moon which raises the water and thus causes the tide directly under our satellite is very plain to all. But what should cause a tide on the opposite side of the earth from the moon? For it is well known that there are two tides every twenty-four hours. Sir Isaac Newton's theory, propounded two hundred and fifty years ago, has prevailed to the present time. Which is that "the moon pulls the earth away from the water on the opposite side." Modern astronomers, including Lockyer, of England, and Newcomb, of this country—the foremost in the world, of this generation, fall in with this theory and give it prominence in their works for our schools. Newcomb, as late as 1902, goes into quite a complicated explanation, but admits that "this perplexes those who are not expert in the subject." In order to make this understandable to any person of moderate mechanical ability, I will refer to the above diagram.

A represents the earth, and B the moon—bodies two hundred and forty thousand miles apart. The moon has a diameter of two thousand miles, and the earth eight thousand. Thus the earth, in its cubic contents and weight, is sixty-four times larger and heavier than the moon. Now, these two bodies, in their relation to each other, are as if connected by an inflexible bar, as G. The moon swings around the earth once a month, in a circle, of which the radius is two hundred and forty thousand miles. At the same time the earth swings around the moon in a smaller circle, of a radius from H to D—about seven thousand miles. All bodies, when free to act, as are heavenly bodies, act and react upon each other in exact proportion to their density or weight. With these two bodies the point of equilibrium, one being sixty-four times heavier than the other, would be about at the letter H, or nearly one thousand miles below the earth's surface.



This point of equilibrium, being at H, it will be readily seen that the moon, in its revolution, would describe a large circle, and at the same time, the earth makes a smaller circle, of which the radius would be from H to D. Supposing at new moon the earth and its satellite are in the positions represented by the dark objects. At full moon, or two weeks later, both bodies would be found at the dotted circles, as at K and F.

The result of this is that there is a powerful centrifugal motion on the opposite side of the earth from the moon, as at D.

It will be noted by reference to the diagram, that H is the point of equilibrium, or balance, between these two bodies—the earth and the moon—and is the point which follows the true circle, or orbit, of these bodies in their annual passage around the sun. The earth and moon, in their annual circle, form wave lines, the first but a slight wave, whereas the latter has a much greater wave, or irregularity, but both these wave lines are always concave to the sun. This is owing to the enormous distance which they travel, being fully fifty million miles in one month. This will be understood when it is considered that in conjunction a new moon is but two hundred and forty thousand miles from the earth's orbit and, two weeks later, is at full moon, or disjunction with the sun, making the difference in this wave line but four hundred and eighty thousand miles, a mere trifle compared with their forward motion of fifty million in one-half the same time.

Now, it is clearly evident that it is this centrifugal motion, and nothing else, which raises the tide on the opposite side of the earth from the moon.

While the moon is the main cause of tides on our earth, there are several other influences in a smaller degree. Thus the sun is one of these and when it co-operates with the moon, as it does at a new moon, we have increased tides called "spring tides." Atmospheric pressure also may have a powerful effect. Thus, if the air is very rare or light at a place near the shore, and very heavy some miles distant. This it was which is reported to have recently raised waves (tides) six to eight feet high in Lake Michigan, near Racine, Wis. Most likely this atmospheric difference had much to do with the destruction of Galveston, Texas, a few years ago, as well as the enormous tides which sweep far inland on the Atlantic coast occasionally.

Astronomers inform us that our moon has lost its rotary motion on its own axis. What could have effected this? Nothing but the enormous tides which the earth would raise on its inner surface and the powerful centrifugal force on the outer or opposite face. These high tides, as they surged against the islands and continents of the moon, served to check its rotary motion, and, in the course of ages, brought it to a standstill, or one face only to our earth, which is all we ever see of that body. It may also be stated that no water is now discoverable on the moon, its former great seas having disappeared in the cracks, crevices and extinct volcanoes arising from the cooling and shrinking of it.

20 Wilcox Street.

[Written for the MEDICAL BRIEF.]

The Negro Problem.

BY J. A. HOUSER, M. D.,
Indianapolis, Ind.

This ever-recurring question has lost none of its gravity since the emancipation of the colored race, though it is now studied as a social question more than a political one, as in the past. The advanced thinkers of both races recognize the race problem as one that will some day, possibly in the near future, tax the statesmanship and philosophy of the nation more seriously than it did during the days of reconstruction.

Some write of utopian dreams of loveliness when education has elevated the colored man to a higher citizenship, while others, with seemingly the same force of reason, conclude that such an intellectual advancement of the negro would greatly increase the hate of the white race, as it would increase the independence of the black man and at the same time bring him into sharper competition with his white neighbor. Booker T. Washington seems to hold this belief, and, though striving to educate his race, at the same time urges them to be content with the humbler paths in life and remain, though educated, the "hewer of wood and drawer of water," and not compete with the white race in the higher walks of life. This position of the great colored educator is bitterly assailed by a very large number of his own race, and Washington denounced by some of them as an enemy of the negro. The black opponents of Washington urge that the negro forge to the front and demand

recognition in every avenue of human industry, from the highest to the lowest positions.

There is a class of white writers, who, figuring upon the increase of the colored race, seem to prove that in time the blacks will so far outnumber the whites that they will have supreme control over the United States, first politically, then socially. This last theory finds much force in the fact that since 1860 the birth rate of the white race has declined, letting the colored race gain proportionately. Were it not for the foreign influx of white people, among whom the birth rate is higher than it is with the native born, the difference would be greater than it now is.

The theory that the negro will ever be highly advanced in education and culture is barred by the one great physiological fact that has stood at the gateway of human greatness for thousands of years, and will as long as the negro is on earth. I refer to the difference in the brain of the white and black race. The white man has, on an average, fifteen cubic inches more of brain matter in the upper and front part of the head, than is possessed by the negro. This difference is in the region of the intellectual part of the organ of mind. For this reason the dark man is not the equal of his fair-skinned neighbor in the power to reason out the problems of his race, with the mind to direct the destinies of his people. He lacks the intellectual genius that conquers nature by mechanical skill in inventions, that span the great rivers with bridges, tunnels mountains, or launches ships upon the sea. No race can lead the world, or even keep abreast of its front ranks, without the faculty to invent and construct. It must also have the ability to lead its kind in moral development. The negro lacks this. He still lacks more. He is not the builder of empires, nor does he rear the lofty domes of republics. It is true that here and there are to be found negroes of intelligence; indeed, some of a high order of intellect, but the aggregate is not sufficient for the demands of a great race. Most all, if not quite all, of the leading intellectual negroes have a considerable portion of white blood in their veins and from this source comes their increased brain power.

It is often said that the negro race has never had a chance to be a great people. This is not true. Chance is but the ability to embrace opportunities. This they have had. They have had one of the greatest and best parts of the world almost entirely for thousands of years, surely ample time to build a nation that would vie with the greatest on earth had the brain power been equal to the demands of Africa. The negro, in his native land, simply rose to the level of his brain power, just as every other race has done in every other part of the world. And he has lived there better than he could live in a more rigorous climate without the aid of a white man's superior brain. In this country the negro is held above his mental level by the influence of the mental power of the white race, but removed to himself he would soon sink to his natural position.

After all, this question, as all of life's problems, is one of cerebral convolutions. It is not a question of color, nor muscular force, it is the battle of mind.

But as to the final results of the two races on this continent, natural forces seem to point to either extermination of the negro or amalgamation of the two races. The first is too awful to contemplate, and the last too repugnant for whites to admit. Nevertheless, they lie in the path of the Great Republic.

Looking from the lurid flames that rise above the black victims and fall upon the savage faces of the hate-frenzied whites, that so shockingly and barbarously put the black offender to death, it does not require a great stretch of imagination to see the blacks retaliating, and in so doing bringing on a race war that would spread like a contagion till the whole country would be infected with the murder-mania. When the clearer skies of peace once more bend above us, it would not need a second look to decide which race had passed by with the past.

So far this catastrophy has been averted by the better judgment of the leading whites and the patience or indifference of the great body of negroes. But will this always obtain, since the worst negroes have not learned to respect the white women as sacred from black hands?

The more probable solution of the race question in this country, though disgust-

ing as it seems, will be miscegenation, and be solved by the morally and socially indifferent virile, young, white men, and the more attractive young colored women. The millions of mulattoes of all shades and degrees, put this fact beyond argument. It is exceedingly rare for one of these hybrids to be born of a white woman. Another proof of the fact that the social morality of the white woman is far above that of the white man.

This debasing condition has been more common in the South than in the North, in the past, but the difference is now in less degree. The influx of the negroes to the North has thrown them in closer relations with the whites, and removed much of the social prejudice, and the animal in this relation more easily dominates the esthetic in the white man, while his superior mind and social position, with financial or other resources, control the dark woman only too often. This regretable state of affairs is perhaps more common in Chicago than in New Orleans.

As amalgamation becomes more common it will likewise be less objectionable and inter-marriage will follow in the wake of the years of illegal association. When the black race is thus absorbed by the whites the color line will grow dim, socially first, and finally the color itself fade to the pale face of the Caucasian and give way to the redeveloped and regained Anglo-Saxon superior mind, with its redeveloped, large brain.

This change will not take place to-morrow, nor next year, but must be the organic work of tireless centuries, and be wrought out in all the world, and result in the obliteration of the oldest race on earth. Following the footsteps of other races with their teeming millions, that long since were hushed in the silence of the eternal past, the negro race will take its place in the voiceless procession, whose noiseless footsteps have wandered beyond the paths of the living.

Corner Alabama and Ohio Streets.

I can not afford to do without the BRIEF, it is so full of good things. I send you the one dollar with best wishes.—E. B. KOGER, M. D., Tate Springs, Tenn.

[Written for the MEDICAL BRIEF.]

Relics of Witchcraft.

BY C. E. BOYNTON, B. S., M. D.

Los Banos, Cal.

In many little towns all over the United States relics of witchcraft ideas yet remain. The witches of Salem and of the middle ages were frequently, yes, almost always, women more intelligent and sometimes prouder-spirited than their neighbors. Women, in some cases distinctly superior in many respects, objects of jealousy and coveted by men they would have nothing to do with. It was as late as 1896 that this conversation took place in whispers at church about a lady of perhaps twenty-nine years of age, one handsome and gifted. The minister being away, she volunteered to lead the meeting. Two uncomely visaged women were holding the whispered conversation about Mrs. Wells, the lady in question, who had offended form somewhat by marrying and then refusing to live with her husband.

"Isn't Mrs. Wells a wonderful woman?" said Mrs. Sopy. "Yes," said Mrs. Sour, "but she is dangerous." "She magnetises me," said Mrs. Sopy, "when I am in her presence I am charmed; I can not take my eyes off her." "That is why she is so dangerous," said Mrs. Sour. "I tell you, Mrs. Sopy, us women should watch our husbands when she is round. Why, the men are all crazy after her, and how folks do talk. She is as slick as a snake; I feel as if a snake were charming me when she catches my eye."

"She knows a great deal," said Mrs. Sopy, "more than any woman in town. Hear her talk now. What a voice; how easy and graceful she is! But, Mrs. Sour, there must be the power of the Evil One in her or she could not be as smart as she is. Oh, dear, I like her, but I am afraid of her. She is dangerous."

This conversation really occurred. Mrs. Sopy repeated it to Mrs. Wells. Mrs. Wells jokingly said: "Yes, you women *better* look out for your husbands around me." As a fact at that time Mrs. Wells was and had all her life been a sexual, and of all women she was the farthest from feeling any desire for the masculine element of any woman I had ever known.

It was years ago when I settled in the bigoted environments where Mrs. Wells made her home.

I learned that she was a very gifted and scholarly woman, and so we became friends. Then the tongues began to wag. I let people talk to me that I might make the case a study. Mrs. Wells, in nearly everybody's opinion, was about all that used to pass for a witch. "With a glance she could bring discord into the home of any man. She could bewitch him and craze him. She was *bad*—of course she was bad. Everybody said she was bad. She should be driven out of town." "Look out, Doctor, you will suffer if you befriend her."

To make a long story short, a masked mob met me one night and their firearms, held in trembling hands, were cocked and aimed at me. "In three days *you*, Dr. Boynton, and that woman must get out of this town. She has made trouble enough, and you defend her. We won't stand it," said the mob. After that all whom I met held aloof from me for fear of the mob that had proclaimed that all who befriended us should be served as we were served. The mob also declared that they would make a special raid on this woman if *she* did not leave.

For a time we departed from that town. We returned to it, however. We were feared, but not molested.

I could recount other incidents. A gifted woman of musical ability, located with her husband in the town of Wheatsville.

The lady lectured and sang on public occasions. She belonged to the church choir. Mr. Park, who belonged to this choir, sent in his resignation. The lady of whom we speak and two other members of the choir were appointed to try to influence him to withdraw his resignation. The others of the committee fell out, and this "new woman" met Mr. Park alone in the church. He abused her; told her she had hypnotised the town, but she could not fool him. She talked quietly to Mr. Park for about ten minutes. He asked her pardon, withdrew his resignation and became her friend. Had the lady been single and had circumstances not favored her when she met Mr. Park all might have gone the other way and the respect of those people been turned to dread. The peculiar element in witchcraft is feminine superiority, attributed to the "Evil One."

Such superstition still remains in many a small town, and the incidents I have given are authentic, and they could be multiplied, while only a limited field has come under my observation. One would be amazed to interview the old ladies of any small town and learn how strongly they believe the "Evil One" is acting upon those whom they see and can not understand. Subjects like these are for medical men to consider. The doctor is very narrow who thinks he has no business reflecting upon things outside of fevers and prescriptions.

[Written for the MEDICAL BRIEF.]

A Case In Obstetrics.

BY N. M. MARSHALL, M. D.,
Butler, Okla.

While scanning over the MEDICAL BRIEF for January, 1905, I ran across an article of a peculiar case in obstetrics. Now, brother, I have an experience of about twelve years' practice, and, of course, have run on to many knots. I think your treatment was not only good, but very good, until you began the bichloride solution as a douche. Then and there was when the mischief was done; that was what caused the swelling—and that was what caused death, I am sure.

Having the nurse to keep up the douche daily, and you do not say what strength the solution was. I was treating a case, once, of multiple neuritis, and the boy's leg was so badly inflamed that I thought I would try and allay inflammation with a one two-thousandth solution of bichloride, and when I next saw the boy his leg was swelled taught and the skin was shiny and slick as glass. I set about to counteract the poison, and I laid the bichloride solution aside, and it has not been used from that day to this. It stands to reason that it would poison an internal surface much quicker than it would an external one. All this has been said good-naturedly and with the kindest feeling towards the brother. We all have our ups and downs and our mistakes in life; let us profit thereby.

[Written for the MEDICAL BRIEF.]

The Evolution of An Idea—My Present Methods of Treating Uterine Disorders and Spinal Irritations.

BY VIRGIL P. ENGLISH, M. D.,
Cleveland, Ohio.

Before my graduation I had decided to make a special study of nervous diseases and the diseases of women. Immediately after graduation I took a post-graduate course, giving my principal attention to non-surgical uterine affections.

When I began practice, I met with highly gratifying success in many cases, but soon encountered some serious difficulties. These difficulties proved to be so great that I could not surmount them at that time.

One of the first cases that defeated me was that of Mrs. P., a divorced widow of, perhaps, twenty-five. When she first consulted me, an examination, or rather, an attempted examination, disclosed the fact that the vagina was so badly inflamed, sensitive and tender, that it was impossible to make a satisfactory examination without an anesthetic. By the use of a galvanic battery three times a week, the negative electrode in the vagina, and sponges of wool saturated with medicated glycerin, the inflammation of the vagina was soon reduced so that a speculum could be inserted and treatment given directly to the womb. This organ was also greatly inflamed and it was displaced.

Everything progressed satisfactorily until the inflammation was entirely reduced. I then encountered a difficulty that I could not surmount. The prolapsus persisted in spite of all that I could do. It seemed to me that the womb was almost abnormally small. It was certainly small enough and light enough in weight. It was not an abnormal heaviness of the organ that caused its displacement. The prolapsus was evidently due to a weakened, lifeless and relaxed condition of the tissues. This I was unable to overcome and the prolapsus was not cured.

Another case that defeated me was the case of Mrs. B., the wife of a working man. She may have been thirty. After she had come to the office a few times for treatment, I was called to her home, the messenger saying that she was feeling very bad. I found her in bed and suffering severely. She had been washing. It was a clear case of spinal irritation and a bad one—severe aches and distress in occiput and base of brain—a sensation that she described as a "pulling and stretching of cords in the neck"—neuralgiac, cramp-like pains throughout the trunk—a peculiar, indescribable distress; pains and distress in the limbs and feet, besides other distressing symptoms peculiar to spinal irritation.

Well, I did not know what to do. I thought that the distress and pains were reflex symptoms from the uterine disorder, but I did not know how to relieve them except by deadening the sensations by the use of opium. So I advised the patient to remain in bed and keep quiet, assuring her that she would soon feel easier.

There was in this patient a general weakened and relaxed condition of all the tissues. It was a very bad case. The abdominal muscles were relaxed and distended. The abdomen was protruding and pendulous, although the patient was not a portly woman.

I encountered several other cases of spinal irritation, the symptoms varying in the different patients. In one case there were occasional convulsions quite similar to epilepsy. This patient never ventured out alone. Her husband came with her to my office.

I was having fine success with most of my cases, so far as the uterine disorders were concerned. But in the reflex symptoms (?) I was more or less of a failure. The patients usually reported improvement but no cure.

Soon after this time, a pamphlet, by Dr. Kellogg, of Battle Creek, Mich., came into my possession. In this pamphlet it is insisted that in most cases of uterine displacement, there is a general weakness and relaxed condition of other tissues besides those of the uterine system. The treatment that he recommends is physical culture—exercises; and if I remember correctly, baths. A number of cases are cited in which the results are highly gratifying.

Dr. Dio Lewis obtained similar results in the same class of cases by exercises in connection with travel, horseback riding and other open air treatment.

It seemed to me that these suggestions threw a little light upon the reasons for a part of my failures.

Not long after I read Dr. Kellogg's pamphlet, a book by another writer came into my possession. The book is long since out of print, the author deceased, and the copy of the book that I had is out of my possession.

In this book a mechanical brace is recommended for the class of cases that Dr. Kellogg and Dr. Lewis were curing by hygienic measures. The same kind of cases that had defeated me. One of the instruments recommended in this book is an abdominal supporter made of spring steel. To my personal knowledge, these instruments gave fine results as an assistant in some cases. Here, then, was another method of treating a part of the cases that had caused me so much trouble and perplexity. But this latter method is a method of relief rather than a cure. It supports the abdomen, rests and relieves the parts very much as lying in bed would rest and relieve them.

It is explained in the book last mentioned that in the cases of distended and pendulous abdomen, the relaxed condition of the abdominal muscles, permits the bowels to protrude forward and downward, thus removing the natural support from under the liver, stomach, heart, etc. That all the organs in the trunk are thus permitted to descend, and that this displacement of these organs permits them to drag and pull upon their points of attachment, causing pain and distress throughout the trunk.

These ideas seem to accord with those of Dr. Kellogg and Dr. Dio Lewis, and to some extent, at least, all three of these gentlemen had obtained favorable results. One of the three, by supporting the abdomen and thus relieving the displacement and dragging of the organs within the trunk; the other two, by strengthening the abdominal muscles, through exercises and other hygienic measures, and thus enabling these muscles to assume their normal position and properly perform their natural functions. Each one of the three methods of treatment corrects the displacement of the organs above the true pelvis, thus removing one of the causes of uterine displacements. And the two hygienic methods strengthen and invigorate the uterine organs and all parts of the body, as well as the abdominal muscles, thus exerting a general beneficial effect.

In the book last mentioned it is also explained that many cases of uterine displacement are caused by the weight and pressure from displaced organs above the pelvis. That when these superior organs become weakened and relaxed, the bowels often descend into the pelvis and exert an abnormal pressure upon the womb and its appendages, thus causing a displacement and irritation of the uterine organs.

I have tried each of these methods of treatment, and with more or less success. The braces before mentioned, with proper modifications, are also used for the cure of hernia. Previous to my acquaintance with this system, I had supposed that hernia is an actual rupture, tear or laceration. But the book already mentioned explains that most cases of hernia result from the distention or stretching of weakened and relaxed muscular fibres surrounding a natural opening in the muscular walls of the abdomen. That relief from the excessive pressure upon this opening will enable the weakened parts to gradually regain their normal strength and tonicity, provided the hernia is properly retained at the same time. That when the fibers surrounding the internal ring have become strengthened and invigorated, and have assumed their normal positions, a case of oblique inguinal hernia is cured. Other varieties are cured upon the same principle of strengthening the walls of the hernial passageway and decreasing its diameter.

These instruments being abdominal supporters, they relieve the excessive pressure of the viscera into the hernial canal. There is then but slight pressure into the hernial canal, and the hernia is retained by a very slight pressure of the hernial pad. This, it is claimed, affords the relief that enables the parts to cure themselves. I used these instruments

with highly gratifying results, so far as a truss is concerned, but did not secure a very large per cent of actual cures.

During the time that I was taking the greatest interest in these instruments, I met a practitioner, past middle age, and of excellent standing, who informed me that he had cured hernia with medicine administered internally. I had considerable confidence in him and his statements, consequently they made so decided an impression upon me that I distinctly recollect them.

The instruments before mentioned, with certain attachments, are used for the relief of spinal irritation. The inventor's idea of spinal irritation is, that the disease results from pressure upon the roots of the spinal nerves. That the intervertebral cartilages become weakened and compressed, permitting the vertebræ to settle down so close together that they compress the roots of the spinal nerves that lie between them, thus causing distress and impaired function in the area supplied by the branchlets of the compressed nerves.

These braces relieve spinal irritation by supporting a part of the weight of the head, shoulders, arms, trunk and its contents, thus decreasing the weight supported by the spine, lessening the compression of the intervertebral cartilages and the consequent pressure upon the nerve roots. These instruments rest upon the inside of the crest of the ilia, and beneath the axilla, receiving, like a pair of crutches, enough of the weight of the upper portions of the body, to relieve the excess of weight upon the weakened intervertebral cartilages and nerve roots between the vertebræ. (See illustration.)

So far as relief is concerned, these instruments are a grand success. But there are several unpleasant and unsatisfactory features attending their use. The instruments are very expensive, difficult to adjust and unpleasant to wear. Only those in easy circumstances can procure them without inconvenience. But the promptness and thoroughness of their relief is often astonishing.

As an example, I will mention the case of Miss H., a young school teacher, of Columbus. She had been in one of our Cleveland hospitals for some months, under the care of one of our most prominent surgeons. The coccyx has been removed, the womb curetted and she had received other treatment with but little benefit. The attending surgeon eventually sent for me to adjust one of these instruments.

The patient was a well nourished girl, as being nourished is usually considered, but she had a bad case of spinal irritation. She was in bed when I called, but arose and stood for perhaps ten minutes, while I took the measurements for the

A perpendicular post extends from the arch above the ilium to the piece beneath the axilla.

instrument. The excitement of a new doctor and a new method of treatment, in connection with the pressure upon the spinal nerves resulting from her erect position for the short time required to take the measurements, caused a great increase in her suffering. The aching and distress in occiput and base of brain became intense, and there was great exacerbation of other symptoms. She was in bed until the time when the instrument was adjusted. Within two or three days after it was adjusted, when I called

to see her, the patient was walking around the hall in comfort and talking with the nurses. In two or three days after that she took a street-car ride.

This method of treatment, however, gives only relief. It is not curative. The cure must be effected by other means.

I soon began trying electricity in these cases. The Faradic current was applied to the spine, and for a few inches upon each side of the spine, causing a contraction of the muscles as the electrode passed over them. This was decidedly helpful but not entirely satisfactory, so I continued to cast about for some method of treatment that would give satisfactory results in these cases. At the same time I was endeavoring to devise a more satisfactory method of treatment for certain classes of uterine affections.

I spent several months studying the matter, in addition to the years previously spent, and eventually reached a few conclusions. It seemed clear that the real wrong which renders spinal irritation possible, is the weakness, lack of tonicity and responsiveness in the tissues. More especially, in the intervertebral cartilages. But a similar lack of tone and resistance usually exists at the same time in the muscular fibers and other surrounding tissues of the spine, and also in the muscles of other parts, especially those of the abdomen. This is the condition in those cases that are not the result of an injury. If the disease is due to an injury of the spine in a person previously strong, the weakness that permits the irritation may be confined to the parts injured.

It also seemed clear that a very large class of the cases of uterine disorders results from this same general weakness of the tissues. That, when the spinal irritation patient is a woman, and the spinal irritation is not due to an injury, uterine affections almost invariably accompany the spinal irritation. That the symptoms which are often considered as reflex, from the uterine disorders, are in reality symptoms that are caused by spinal irritation or the dragging and pulling of displaced organs upon their points of attachment. That cases of uterine displacement that are not due to the congestion and heaviness of the womb, are usually accompanied by spinal irritation. That a general weakness of the tissues is what permits both diseases. Many of the cases in which the womb is congested and enlarged are also complicated with spinal irritation.

It seemed clear, then, that weakness, relaxation, lack of tonicity and responsiveness in the tissues is the real wrong in a large per cent of cases, that renders both diseases possible. That this is the condition in many of those cases of chronic uterine affections in which the patient is better and worse, but is never cured. She still suffers year after year. Local treatment relieves the local inflammation, but it appears again in a few months or years, and the patient has never been entirely cured of the reflex (?) symptoms.

It looked to me as though it ought to be possible to satisfactorily treat and cure these cases. And that a treatment which would cure spinal irritation would also cure a part of the wrongs in a large per cent of the cases of uterine affections. That a satisfactory treatment for uterine disorders would also cure spinal irritation. That there is such a relation between spinal irritation and certain classes of uterine affections, that a satisfactory treatment for the one, would also be a satisfactory treatment for the other. Or, at least, a valuable assistant in the treatment of the other.

I proceeded upon this basis, talked with my friends among the physicians, and studied the materia medica. I had not forgotten what had been said to me relative to hernia being cured by medicine taken internally. It seemed clear that, if it is possible to cure hernia in this way, the cure must be effected by imparting vigor, resistance and tonicity to the tissues surrounding the approach to the hernial canal. That if it is possible to cure this weakness in this way, the remedies which will do the work ought to be of assistance in the work that I desired to accomplish.

Eventually the problem was solved to the extent that I considered it time to begin testing my theories. The results have been highly gratifying. In studying the materia medica, I found a large num-

ber of remedies that seemed to have some property or some action that would be of assistance in the work I was endeavoring to accomplish. I have probably used thirty or more. But those that I consider of most assistance are fewer in number. Some of the more important were given in my article on spinal irritation which appeared in the October number of the MEDICAL BRIEF. Of course, the complications that are encountered must be met with the indicated remedies.

In developing the system of treatment for spinal irritation and uterine affections as partly explained in my article in the October issue of MEDICAL BRIEF, an effort was made to combine, as far as seemed practical, all of the individual methods and assistants that had proved successful in the particular classes of cases that I was making an especial effort to reach. Cases in which the usual methods of medical treatment, as I understood them, had not been a satisfactory success at my hands.

It seemed that some of the particular features of these cases in which medicines, as I was then using them, had not proved a success, were being satisfactorily cured by other methods. It seemed that some of the particular features of these cases in which medicines were doing the least, were being reached by sanitarium treatment at the hands of Dr. Kellogg. Dr. Lewis had been accomplishing about the same kind of results by in-door and out-door exercises—travel, walking, horseback riding, boating, etc.

An acquaintance of mine had cured hernia by imparting tonicity to the weakened tissues through the use of medicines. Hernia had also been cured by an easily fitting truss pad in connection with an abdominal supporter. Certain features of uterine affections had been cured by an abdominal supporter, alone, or in connection with medicines. In many cases, this support of the abdomen seemed to be the one thing necessary, in addition to the usual methods, to effect a complete cure. Spinal irritation was relieved by the use of supports or braces. It was also benefited by electricity. Some temporary relief in spinal irritation was also secured in hospitals, by stretching the spine by means of straps under the armpits and under the occiput and chin, connected with a line running over a pulley in the ceiling, the line being pulled by an attendant until the desired degree of spinal stretching had been secured. Magnetic healers and masseurs had also done some good work in spinal irritation and in the cases of uterine disorders in which weakness and relaxation of the tissues were one of the principal wrongs to be overcome.

It seemed that a satisfactory method of office treatment, and even a treatment to be used in the patient's home, could be constructed by combining the best and most practical features that could be selected from all these various methods of treatment. This is what I have done. I have drawn from these various sources the features that seemed to be most practical for my purposes, and have combined these various features into a system of treatment for these disorders. Of course, the usual methods of medical treatment are included. Osteopathy and chiropractic were not considered. I did not even know that there were such methods of treatment for these disorders. But from what I now know of osteopathy, I understand that the osteopaths are using some of the same methods.

My present methods of treatment, then, are a combination of the best features selected from the different methods that have proved most successful when used singly. Other practitioners who will take the trouble to give a like systematic and thorough treatment, will cure a great many cases that their neighboring physicians are not curing.

The various hygienic measures that are valuable assistants in these cases, if they are such that the physician can readily employ, are combined with the most effective of the tissue builders, and whatever additional remedies that may be required to meet the peculiar features of each individual case. I do not use the braces, but often recommend a towel or other home-made abdominal supporter. If money is no object, a higher priced supporter may be used. But most patients are soon improved so much by the treatment that no supporter is needed.

Local treatment is used in the usual way to relieve local inflammation. The

indicated remedies, internally for the systemic wrongs, suppositories or capsules for local treatment, are given to patients who live in the country, or who, for any reason, can not visit the office, or who can visit the office only at remote intervals.

In the treatment of these cases, certain facts are kept constantly in view. One is the fact that in cases of spinal irritation that are not due to an injury to the spine, and in cases of prolapsus, relaxed and pendulous abdominal muscles, etc., the real causes of the disorders are two in number. One is a lack of the tissue elements that are necessary to properly build the intervertebral cartilages. The other cause is the failure of the parts to properly appropriate the requisite tissue elements when they are present in the blood.

The rectification of both of these wrongs is provided for. The elements necessary to build the intervertebral cartilages and other tissues are supplied with the remedies. Their proper appropriation is provided for by the rubbing necessary to apply a part of the remedies that are incorporated in a cerate, by exercises especially adapted to these cases, by general physical culture, etc.

13 Plymouth Street.

[Written for the MEDICAL BRIEF.]

Some Abnormalities of the Bladder and Prostatic Urethra Due to Hypertrophied Prostate.

BY M. R. BARKER, M. S., M. D.,
Chicago, Ill.

According to the most carefully prepared statistics, about thirty per cent, or nearly one man in three, who has reached the age of sixty years, has hypertrophy of the prostate gland. It is, however, true that only sixteen per cent, or one man in six, who has reached the age of sixty, has urinary trouble, due to this condition.

There is not a nook so isolated, nor a hamlet so small, that it may not contain its prostatic. This disease chooses its victims from every class of humanity. The poor and the rich, the bond and the free, the dissipated wretch, the abandoned outcast, the most virtuous of men and the holiest of saints, suffer alike. It is the most cosmopolitan of maladies. It is at home wherever the man of advanced years resides, his race or color being matters of indifference.

The histology and gross anatomy of the prostate body in health and disease is known. Its position and functions among the genital organs is understood. The tissues that enter into its structure and their relations to each other in health and disease have been determined. It seems that there is nothing concerning the physical nature of this gland in health and disease that has not been discovered. But one problem connected with this gland still remains unsolved, the solution of which has been more diligently sought than all others. Why does this gland, at a certain universal period of life, take on this condition of hypertrophy? Many theories have been advanced, some of them doubtless within the neighborhood of truth, but lacking that foundation of fact necessary to elevate them from the category of theory. Hence, today we are about as much in the dark as to the etiology of this malady as we have ever been. With propriety we may ask: Would the knowledge of the etiology of this condition help us? It would be a great satisfaction to know, but if the knowledge did not afford us a way of discovering some system of prophylactic therapeutics, we would not be much benefited by it.

Perhaps there is no other condition that causes so much suffering among the old, and shrouds in gloom the declining years of men as does this. It comes to men after they have borne the burdens pertaining to life through youth and middle age. It attacks them when courage and physical force are on the wane; at that time in life when, in accord with natural laws, man should be free from vexatious cares and physical disabilities. It changes that period of life which should be the most peaceful into years of apprehension, pain and, in many cases, actual torture.

It is our purpose in this paper to illustrate and describe some of the deformities and pathologic conditions of the bladder and prostatic urethra, caused by hypertrophied prostate.

In the type of large, soft prostates, of which we have spoken in a previous paper of this series, the enlargement is quite uniform. That is, the whole gland enlarges uniformly and, as described in a previous paper, becomes very large and heavy, and the abnormalities and pathologic conditions caused by it are not confined to the prostatic urethra alone, but the musculature of the bladder wall and the nerves that supply the same are disarranged and destroyed. In this type we believe the urinary troubles caused by it are due more to these pathologic conditions than to mechanical obstruction, and that in this class of cases we may expect, sometimes, post-operative enuresis, not due to the handling of the parts during the operation, but due to the damage done by the gland before it is removed. We speak of this type as the large, soft prostate. It is only relatively soft. To the touch, while in the body, it seems as hard as a piece of wood, but when removed and stripped of its capsule it is relatively soft. The manner in which especially this type of enlarged prostate destroys the normal action of the bladder has been fully described in a previous paper, and need not be mentioned here.

In the other most common type of enlarged prostate, which is known as the fibromuscular, or myomatous type, because of the hypertrophy of the muscular and fibrous tissues, it is most common for this form of enlargement to be made up of multiple myomas, each surrounded by a capsule. For this reason this type is liable to be very nodular and hard. These nodules may project from either lobe of the gland, or from all the lobes, at any point and in any direction. Sometimes the projections are very marked. When the projections are towards the urethra, or, in other words, push themselves into the urethra, they bend and distort it in such a way as to close its lumen and obstruct the flow of urine. Figure 1 illustrates one of our cases; two projections from one lateral lobe and one from the other, in such relation to each other as to close the prostatic urethra. In this case there was no middle lobe enlargement, but the urethra was wedged in between the projecting nodules of the lateral lobes and bent almost at a right angle. It is also elongated to twice its normal length. It can be readily understood how this condition completely closed the urethra, and how impossible it was to pass any instrument into the bladder through the prostatic urethra. We believe, in most cases of this type of enlarged prostate, the urinary troubles are due to mechanical causes, and the removal of the prostate cures the case at once.

In the large, soft prostate we often have middle lobe enlargement. The hypertrophy of the middle lobe will be of the fibromuscular type, as the middle lobe does not contain prostatic cells. In such cases the urinary troubles may be due, in part, to mechanical obstruction of the prostatic urethra.

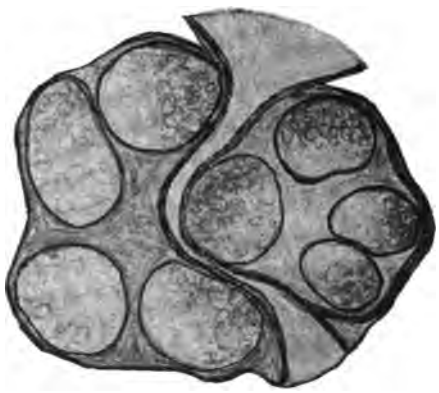


Fig. 1. Showing multiple myoma of both lateral lobes, with bending and lengthening of the prostatic urethra. Lateral section.

The middle lobe, normally, is a muscular commissure connecting the lateral lobe's posterior to the urethra. When this enlarges and causes trouble, the urethra is encroached upon from behind and is pushed forward, thus bending the urethra from behind forward.

The reason for the fact that only about one-half of the number who have enlarged prostates are troubled with urinary difficulties, is probably this: In the fibromuscular type, the nodules frequently do not project from the lobes towards the urethra, but away from it; thus the urethra is not encroached upon by these nodules, and so not distorted nor occluded.

In the other type of fibromuscular prostates, in which the whole gland becomes

universally myomatous, instead of multiple myomas, the prostate does not present the nodular appearance, but enlarges in all directions quite uniformly. This type

Fig. 2. Shows uniform enlargement of both lateral lobes projecting into urethra from each side, and narrowing its caliber laterally. Also multiple myoma of middle lobe projecting into urethra posteriorly, bending the urethra forward and elevating the urethral outlet. Front view.

often mechanically closes the urethra by the enlarging lobes approaching each other and compressing the urethra between them. In one of our cases we had uniform myomatous enlargement of both lateral lobes, projecting towards the urethra, narrowing its lumen laterally and multiple myoma of the middle lobe, projecting forward into the urethra, bending the urethra forward and greatly elevating the urethral outlet. Figure 2 illustrates this case very well. There may be any combination of these projections from the multiple myomatous lobes. One lateral lobe may be uniformly enlarged, while the other lateral and middle lobes may be nodular. As a rule, the nodular lobes distort the urethra most, yet we may have uniform enlargement of one lobe and no enlargement of the others and the urethra pushed to one side. In all hypertrophied prostates the prostatic urethra is lengthened.

As before stated, the middle lobe is the muscular commissure connecting the lateral lobes posterior to the urethra. In nearly all cases the fibres of the sphincter vesicæ that surround the mouth of the prostatic urethra blend with this posterior commissure, and when this commissure or midde lobe hypertrophies, these fibres of the sphincter are pushed forward into the lumen of the urethra, just beneath the mucous membrane, and forms the so-called muscular bar that crosses the urethra just before the bladder is entered. This bar, at times, causes great trouble in passing instruments into the bladder, the catheter or sound passing over it with a distinct jump. Through this bar false passages are often made by too zealous attempts to pass instruments. Figure 3 illustrates a case of ours in which a metal catheter had been passed through the middle lobe. After removing the gland the middle lobe was found punctured as above.

In all forms of hypertrophied prostates, the urethral outlet is elevated by the enlarging prostate. This is much more marked when the middle lobe is involved. The larger the prostate the more the elevation. Figure 4 illustrates this condition. The intra-vesical pressure, due to the obstruction of the urinary flow, causes the bladder wall to distend at the point of least resistance, or at the point where the pressure is most constant. This is always more marked when the bladder wall has been weakened by the disarrangement of its musculature at the neck of the bladder and its nerve supply damaged. The place of distention is just behind, or posterior to the enlarged prostate, where

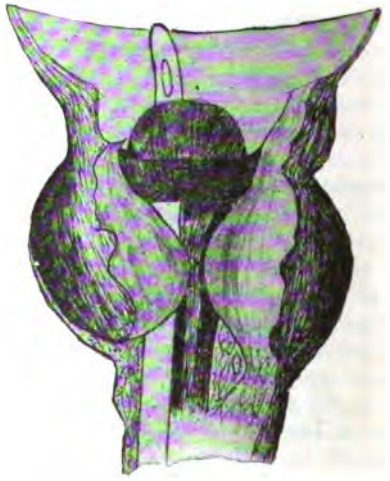


Fig. 3. Showing muscular bar pushed forward in middle lobe hypertrophy and false passage made by nearly straight metal catheter. Front view.

a sack is formed. This sack fills with urine and cannot be expelled, hence is known as residual urine. This residual urine varies in quantity from one to six

ounces, and predisposes to vesical catarrh, from which disease these patients always suffer. In a previous paper we have described the manner in which the fibres

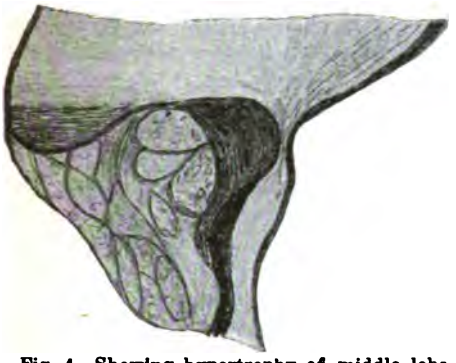


Fig. 4. Showing hypertrophy of middle lobe pushing forward into urethra and elevating the urethral outlet. Also showing sack behind the prostate full of residual urine. Sagital section.

of the detrusor urinæ muscle at their origin and insertion are widely separated by the enlarged prostate. In some cases this gives rise to a sacculation of large portions of the vesical mucous membrane. The mucous membrane loses its tone, as it were, by reason of being over-distended with urine for long periods of time, and the fibres of the muscular tissues sur-

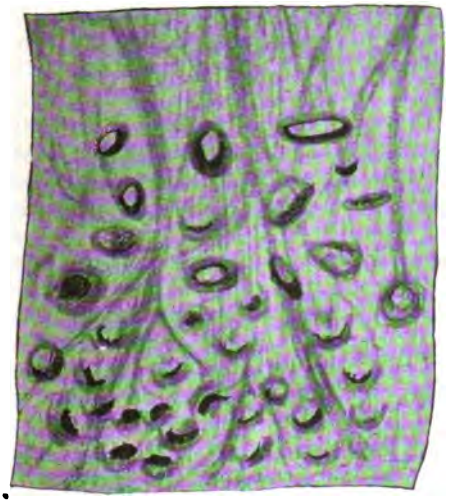


Fig. 5. Showing saculations of mucous membrane of bladder.

rounding it being separated, the mucous membrane pushes through these meshes, so to speak, and forms numerous small sacks. The urine collects in these sacks, predisposing to vesical catarrh. Figure 5 illustrates these sacculations.

Of the thirty cases in this series which we have operated upon, there were twenty-two of the large, soft type, or seventy-three per cent of the number treated and eight of the fibromuscular and fibrous types. This would seemingly show that the large, soft type was much the more numerous. In fact, however, it does not demonstrate this, for the reason that the proportion of the large, soft type, that causes trouble, is far greater than in the fibromuscular type. It is probably true that ninety-five per cent of the large, soft type cause trouble because of their enormous size, while it is also probable that less than fifty per cent of the fibromuscular type cause any trouble; hence, the surgeon does not meet half the cases that exist in one type of this trouble, while he practically meets all of the other type.

4625 Greenwood Avenue.

[Written for the MEDICAL BRIEF.]

The Secret of Health and Its Possession.

BY AXEL EMIL GIBSON, M. D.,
Los Angeles, Cal.

(Continued from page 833.)

Food Not Energy in Itself; Only a Conductor of Energy.—It is, however, a mistake to consider foodstuffs as generators of inherent, intrinsic force. Food is merely a carrier of force, and the facts ascertained in connection with what is termed "nitrogen equilibrium," by which is meant a condition of an animal in which, within a definite period the amount of nitrogenous food taken into the system covers exactly the loss of nitrogen sustained by the organism during the same time, demonstrates that the foodstuffs in passing through the circuit of metabolism in the body have lost nothing of their elementary substance. On the other hand Pfluger, Voit and Pittenkofer have succeeded in maintaining the general metabolic equilibrium of a dog while feeding him on an exclusive proteid diet. When we further realize that the food-value available in meat is made up by proteids, while elements not less necessary for animal life, such as fats, sugar, starch, etc.,

must be extracted from other substances, it follows that in order to maintain a prolonged general metabolic equilibrium on an incomplete diet the organism must draw means of sustenance from a source not suspected. Furthermore, it has been demonstrated that the losses sustained by the organic tissues during a process of starvation are of an entirely mechanical, not chemical character, involving quantity of bulk, rather than quality of substance. In the last stages of starvation it has been found that the blood still retains its original percentage of composition.

A consideration of these facts leads to the conclusion that there must somewhere be found a reservoir of vital energy, in which is held suspended every potentiality of form and expression. And as it furthermore has been shown that this vital energy, in its action on growth and existence, is unmodified by diet and general hygiene, it must follow that its seat and center is in the very air itself.

If this be so, the various foodstuffs by which we are sustained are mere agents or carriers of vital energy from the air to the body, temporarily changing and modifying this energy into states of vibrations available to the developing organisms. But these agencies depend for their action on the presence of microbes, by whose industry the primary changes are initiated, leading up to the final transformation of elementary potency into organized substance. For at the gateway of organic growth stands the microbe, elaborating and condensing the subtle, elemental energies of air into organic constituents. Some of these microbes and their specific action have been most unmistakably demonstrated, as, for instance, *micrococcus nitrificans*, whose service is enlisted in the elaboration of free nitrogen of the air into organic compounds in the structure of the vegetable. And these elaborations are not limited to the element of nitrogen, but extended all along the border lines dividing the mineral from the organic zones of Nature.

Is There Any Possibility of Living on Pure Air?—On the strength of this fact, the question may be raised whether in the first place the mineral kingdom is an indispensable intermediary between the vegetable and its food, and, in the second place, whether the vegetable in its turn constitutes a stage of organic chemistry through which the life-holding elements of the air have to pass in order to be utilizable in the construction and support of the human-animal organism? Through a series of painstaking experiments, with the soil in the Valley of the Rhine, Dr. Wohltmann, Professor of the Agricultural Institute in Bonn-Poppelsdorff, Germany, has ascertained that wherever the soil is rich in nitrogenous fertilizers, preferably ammonium nitrate, the leguminous plants are found to grow and absorb nitrogen without the presence of bacteria. From this fact the famous scientist draws the conclusion that "the association of the plants with the bacteria is in the nature of expediency—an evolutionary departure, indicating life processes, which are aiming at permanency."

Future Independence of All Forms of Cookery.—Hence, it is only under stress of compelling circumstances that the vegetable, assisted by bacteria, obtains nitrogen directly from the air. Surrounded by favorable conditions, Nature abides with ancient methods, but is ever level to any emergency arising from the presence of true needs or necessities of its creatures. But necessity again is merely the name of an evolutionary departure, which, under the scrutiny and appreciation of self-consciousness, rises into a force and self-chosen act.

Hence, by the human being voluntarily placing his body under conditions similar to those present in the poorly nourished vegetable, *i. e.*, by gradually reducing his ordinary diet to the border of nutritious insufficiency, the individual may find at his disposal the same powers of direct atmospherical absorption through bacteria as is at present available to the vegetable. To gradually and carefully abstain from food, followed by a living realization of the power of the organism to absorb nourishment directly from the air, means to unlock or uncover powers which shall in the course of time make men independent of nourishment in its present vegetable or animal form. The atmosphere will open its storehouse of life and powers to the man who, in place of filling his stomach with gross, nerve-and-mind-exhaustive substance, aims at maintaining

the balance of organic supply and demand by deep, rhythmic respirations, and small quantities of water. When in a some more or less distant future, the individual reaches a state where such diet is possible for the sustenance of life, his vegetative expenditure will not exceed the price he at present pays for his not less necessary life and health-sustaining indulgence in sleep.

Like all forces, life moves along the lines of least resistance. Hence, by offering inducement for the action of this life-force in one or other direction, we gradually succeed in conducting its energies along the desired channels. Thus undue indulgence at the dining table, if continued, means a gradual closing of every avenue of life and vital power, save the grossest, most laborious and most time-and-energy-wasting of them all—eating. Eating is an expediency adapted to the needs of physical evolution, sustained and increased through the grossness of our desires and indulgencies, and resulting in the subsequent low tone of cellular vibrations which attune the metabolism of the body to the action of nourishing life.

The Value of Water in the Assimilation of Food.—An advanced step in the list of ideal forms of nourishment is found in the water which through its absorption by the animal organism gives rise to none of the laborious, wasteful processes involved in the absorption of solids. Like air, water contains in its substance every element required to sustain vegetative existence, though its inability, so far, to supply our bodies with adequate nourishment is due to the failure of the body-cells to respond to the subtle vibrations through which life finds an expression in that element. Yet there are cases on record where existence has been sustained for weeks and months, in absence of any other nourishment than water. The invigorating action which water exerts on the growth of plants is found in its quality of vehicle for the all-sustaining principle of life. Hence, the nearer a nourishment approaches the forms of liquid, the less expenditure is connected with its absorption. Thus starch is largely indigestible because of its impenetrability by water, while fruits with their large percentage of water are the easiest digestible of all foodstuffs. The same principle holds good with regard to oils and fats which are subject to absorption only when reduced to a state of emulsion.

A diet on fruit and nuts, in which oil is held as an emulsion would, therefore, be in the order of evolution as preparing the way for a pure water diet, with the subsequent departure of diet into the metrix of all life-sustaining energy, the zone of pure air, with the metabolism reduced to the transforming action of the microbes.

For it must be granted that there can be nothing in the soil not transmitted to it by water, air and light, while furthermore there can be nothing in the water which is not potentially present in the air and light. Corporeal substances are mere carriers or transmitters of life.

Hence, the whole process of growth depends on the harmonious co-operation between an impelling life force and a responsive physical basis. Life is the performing artist, and always perfect, always true, while the bodily instrument—"the harp with its thousand strings"—may or may not be true.

Hence, like an artist who, notwithstanding his genius, depends for his success on the accuracy of his instrument, so the genius of life for its manifestation in perfect health and virility depends on a completely equipped and full-toned instrument. Sweeping over the strings of the human harp, the harmonies of life can be elicited only where there is a perfect response to its vitalizing touches. In other words, if the cell which is back of every function is impaired and incapable of response to that special phase of life which manifests in a certain functional power, the latter becomes arrested with the subsequent result of disease. Hence, the failure of food, be it ever so nourishing, to generate health and strength if the cell is incapable of eliciting and utilizing its vital principle.

Hence, the entire question of life and health is involved in the power of the cell to respond to the incoming messages of Nature's vitalizing impulses. The higher this power, the higher and subtler will be the forms of existence arising under its action, until in the course of an ever-accelerated evolution the whole chain of progressive forms of nourishment can

naturally be dispensed with, leaving to the cell itself the function to obtain its building material directly from the atmosphere.

Eating to Be Made a Moral, Rather Than a Physical Act.—The processes leading up to this high vegetative state are engendered by a careful selection of foods, with quality ever placed above quantity, and end above means, thus gradually turning eating into a moral rather than a sensual act. To eat in response to necessity rather than to the craving of a more or less exaggerated appetite, and by constantly keeping in view the supreme fact that eating never was intended to constitute an end in itself, but a means by which an end may be attained, forms the basis of all sane and truly progressive existence. For appetite is an animal rather than a human quality—the impelling force by which Providence guides its unreasoning creatures of the lower kingdoms along paths of unfailing, because of instinctive safety; while the human individual is equipped with faculties of thought, reason and volition, by which he is enabled to choose for himself and in perfect independence of a craving, which, owing to artificial and abnormal modes of living, is mostly irrational and misleading. As an exponent of self-consciousness it behooves the human being more and more to assume control of his vital processes, and bring his functions to yield ever higher results in the course of a constantly intensified evolution. The control of appetite and eating is not less important in the pursuit of health and progress than the control of breath and motor muscles. It must be within the power of man to gradually assume complete control of every function and faculty of his nature, and wield them in the service of universal progress.

Physical Culture of No Value If Divorced from Usefulness.—But the way to attain this power lies not in any exercise carried on for its own sake. Swinging with dumb-bells, punching the bag, or any howsoever elaborate stretch of muscles, etc., is powerless to accomplish what a useful, purposive exercise in the open air will accomplish. Usefulness, creative work, universal purpose, are the levers of universal power which yield the greatest and most permanent results.

It is in the midst of nature that life exhibits its greatest results. To mingle with her forces, to coöperate with her efforts and unfold in the direction of her aims and purposes, turns the mere mechanism of action into the dynamics of universal usefulness. Unselfish motive, embodied in vigorous purposive action, is the key by which the individual may open up Nature's sanctuary of health and power. "Not what I have, but what I do, is my kingdom."

611 S. Flower Street.

[Written for the MEDICAL BRIEF.]

Asthma.

BY J. H. JERGESEN, M. D.,
Milwaukee, Wis.

[No. II.]

True asthma, or spasmodic asthma as it is also called, is supposed to be of a pure neurotic nature; it comes on, apparently, without any cause and leaves without leaving a clue to its factors.

Asthma caused by a visible or traceable cause is therefore not true asthma. To the form of asthma having a traceable cause belongs emphysematic asthma, bronchial and catarrhal asthma, renal and uterine asthma. Hay asthma must also be considered in class by itself, and so must hysterical asthma. Cardiac asthma, which is, strictly speaking, not asthma, may properly be classed as a mechanical form.

The earliest writers recognized two forms, one which they called ἄσθμα (short breathing) and another called ζωπγοια (short of wind.)

Emphysematous asthma very similar, in some particular, to spasmodic asthma, but very different in many particulars. The symptoms of emphysematous asthma differ chiefly from the spasmodic in that it seldom leaves the patient entirely; it has its permanent pathological cause, dependent on destructive changes in the lungs, and, in cases of long standing, a malformation in the chest-walls. Such destructive changes being progressive, produces as a consequence anatomical deformities in sympathetic organs—such as the heart.

The well-known deformity, always present in emphysema, and which carries its name—the emphysematous chest, and the right ventricular dilatation are (can) stand pathological deformities found as a result of emphysema of long standing. Tricuspid insufficiency, hypertrophied sterno-cleido-mastoid muscles, dilated jugulars, and cardiac epigastric shocks. These, with others, are permanent symptoms, which are always present in emphysema.

Emphysema exists when the minute anatomy (histology) of the alveoli and air cells of the lungs are permanently changed, and their physiological functions interfered with in such a manner that the whole or part of the lungs are incapacitated from bringing the venous blood in the intralobular capillaries in immediate contact for aeration and oxygenation by the air in the infundibular. As a consequence of this destructive change we have on the slightest provocation an attack of emphysematous asthma. Here, therefore, we have a visible or traceable cause and is therefore not "true asthma," or spasmodic asthma, but emphysematous asthma.

Emphysema may be caused by whooping coughs, bronchitis and spasmodic asthma as well.

A paroxysm of emphysematous asthma might be induced by exertion (walking, climbing stairs, coughing, catching cold, etc.) and it may come on any time and anywhere, under all circumstances, whereby the systemic blood circulation is accelerated, and in consequence the blood current is insufficiently oxygenated, so that carbondioxide is found to excess in the blood irritating the respiratory centers, and a cry for oxygen from every nerve and tissue-cell in the whole economy is impressed on the respiratory centers and dispatched over the pneumogastric nerves to the lungs; they immediately increase their action, though without relieving the condition. The paroxysm, however, although like true asthma in many features, is unlike it in the nervous phenomenæ being absent; (the patient must be protected from cold air); he is able to raise mucous and cough under paroxysm. There is an absence of the large quantity and often voidance of clear and limpid urine; the paroxysms are of much shorter duration; comes on oftener, and at all times, night or day, and as often as provocation is at hand, while true asthma is purely a nocturnal affair.

Under ausculation vocal fremitus can be heard over all of the upper half of the chest, moist râles and gurgling sounds are constant symptoms, and undue exertion will produce sibilant notes. Percussion elicits hyper-resonant notes at all times. In emphysema expiration is never complete. In collapse the lungs are found to be expanded as much, as would ordinarily be the case, when in health inhalation is complete.

The respiratory function consists as much in the collapse as in expansion—emptying the lungs of air, as it does in filling them. Therefore, if the power of normal contraction is lost, and therefore unable to empty itself of its contents, and if the power of expansion is still normal, and forcible inhalation takes place—the lungs already being full—the natural consequence must be an over-expansion of the air-cells, and, if continued, a permanent dilatation takes place. The lungs lose their resilient elasticity and hypertrophy is the consequence.

The lungs are divided into lobes, each of which is a lung in miniature, consisting of several infundibulas, with their nerves, arteries, veins and lymphatics. Such an infundibula is normally one-third larger than their areolas opening into them, but, by this permanent expansion they become proportionally much larger. The alveoli themselves next enlarge and their septas wither and lose their elasticity from lack of proper blood supply. The lungs having lost, in that way, their normal elasticity no longer tend to further contract to complete expiration, so that a large volume of residual air remains in the lungs.

The thoracic walls and the diaphragm, instead of being drawn in and upwards by the traction of the recoil of the lungs, simply collapses to their position of rest, and are thenceforth a dead weight to the expiratory muscles, instead of aiding the action of these muscles through their elastic rebound. From that we see, in emphysema, the inspiratory act begins, where in health, calm inspiration should end.

The deformity of the thorax, or the so-called emphysematous chest, is without a doubt caused by the pathological changes of the histology of the lungs. It has been considered congenital or hereditary, but it is so invariably present that pathologists look for it as an undisputable symptom or condition in emphysema. That that condition is caused by the abnormal condition of the lung seems to be agreed to by all modern teachers of etiology, reasoning in this way: Impairment of lung texture will render any dilatation, howsoever induced, more or less permanent, and an enlargement to the chest will result. Thoracic resilience must also, by degrees, be impaired. When, therefore, thoracic recoil does not pass beyond a certain point the chest must assume this as a permanent position; because of the tectural changes in the cartilage induced by non-use, as is natural in all tissues. Is this position first fixed? It is. Does the recoil never pass beyond a certain point? Ossification at that point must take place. Such changes having taken place and we have the deformity commonly called by its name "emphysematous chest."

The chest is rigid, the ribs are straight and seemingly broader, the intercostal spaces are diminished, the chest capacity is much enlarged, it is uncollapsible beyond a certain point.

In a paroxysm of asthma the chest is seemingly enormously distended, the epigastris is drawn high up under the ensiform and ribs, and apparently it does seem as if the uncollapsability of the chest wall were the only cause of the trouble.

Bronchial or catarrhal asthma is another form of asthma which is liable to be confounded with true asthma. As a rule, it is not difficult to differentiate between the two diseases. Catarrhal asthma has its own history of daily coughs, hoarseness and harshness of the voice, the face is bloated, bags under the eyes. He complains of pains in the chest, a fulness and tightness, which is often described as a girdle sensation or a band around the waist, and weight on the sternum, which, in many cases, are very uncomfortable symptoms.

A paroxysm of catarrhal asthma is, as a rule, ushered in in the form of a common cold, but not as a cold that passes through its initial stages in forty-eight to twenty-four hours; but it passes through all its stages in one to two hours, and I have seen cases of it that passed through all the stages and developed into a severe attack in less than fifteen minutes, caused by drinking a glass of cold water on a warm summer day. It was cured nearly as quickly as it came on by forcing the patient to drink a quart of water at the same temperature as that which caused it.

The first knowledge a patient has of an approaching paroxysm is a dryness of the mucous membranes of the nose. Progressing, there is an uneasiness between the shoulders, the tightness of the girth sensation, and that the otherwise copious expectoration has become scant and his cough, instead of being vigorous and successive, is one long-drawn wheeze, and soon his spell is in full force; but is unlike spasmodic asthma in nearly every aspect. The only thing the two patients have in common is that they are both struggling for breath. In this case the pulse remain full, and often bounding, the skin is hot and suggestive of fever, the face becomes more bloated, increased soreness of the chest. The patient, instead of bending forward, prefers to lean backwards, and have the chin raised. The most prominent difference in the two named diseases is that in true asthma the impediment is to expiration, whereas, in catarrhal asthma the impediment is to inspiration. After a paroxysm is ended, as a rule, there is a profuse expectoration of a thick phlegm, yellow, and often tinged with blood. This seems to indicate that the reverse is the cause to that of true asthma.

In this case it seems that there are at all times an overabundant secretion of the bronchial glands. This, from one cause or another, becomes impeded in the bronchiolas, whereby free access of air to the air-sacs is prevented and a mild form of asphyxia issues, and a struggle for breath is at once in full force.

In true asthma, as we have seen, the reverse is true—a patient may complain

of an uncomfortable dryness of the chest; he often feels the necessity of coughing, but is unable to raise anything and relieve the sensation. When a paroxysm ends there may be a small pellet of mucus expectorated, but beyond that expectoration is scant.

735 Third Street.

[Written for the MEDICAL BRIEF.]

The Effect of Vacination on Small-Pox.

BY ANSEL STRICKLAND, M. D.,

Cumming, Ga.

I have just read and re-read the article on page 677, of August BRIEF, written by Dr. P. S. Ayers, entitled, "The Effect of Vacination on Small-Pox."

Now I will say in the beginning that I did not write the piece on chicken-pox in April BRIEF to get up a discussion through the medical press, nor for notoriety, but for the benefit of the profession at large.

As the Doctor seems to be in doubt as to what his patient had, and asks for information, I will endeavor to make it a little more clear to him.

In the first place, I put down seven points to look after in forming a diagnosis between a case of chicken-pox and a case of small-pox, and if these directions are strictly followed, he can have no doubt. The Doctor says that in all of his cases the period of incubation was fourteen days, dating from the day of desquamation, until those that were exposed came down. Now then, the desquamation in a case of chicken-pox begins on or about the seventh day, that alone would make all of his cases chicken-pox, for seven and fourteen makes twenty-one; now as chicken-pox is conveyed through the breath, then it had to be caught, or could be caught before desquamation began.

To make it plain, A and B sleep together on the night of the first day of August. B starts to his home the next morning. On that day A has what he thinks to be a bad cold, and stays more or less sick for a day or so, and on the 7th he breaks out with what the doctors call small-pox. Now, if it is small-pox then you go to B's house on the 14th of the month and you will find him sick, but if it is chicken-pox that A has, then on the 21st you will find B sick.

Then the Doctor seems to think I put the death rate too high in small-pox. To that I will reply that the lowest death rate in cases of small-pox that I find put down by any writer of note, is thirty-three per cent, under the best of treatment. Dr. Eugene Foster, of Augusta, Ga., who was a noted writer on small-pox, and had a lot of it to deal with, said the mortality among infants was ninety per cent; old age, seventy-five per cent, and middle-age, forty per cent.

A few miles east of here, three out of four died, although they had the best of attention; south of here, seven out of eight died with it, and they had the best of attention; that is what I call small-pox. Now we have in this county about fifty cases of chicken-pox a year, with no deaths. I know of a number of cases of chicken-pox in this town now, and we use no quarantine whatever. Those that take hot teas or drink whisky have it badly, and those that take nothing have it lightly.

A lady wrote to me from a town of about four thousand inhabitants, and said that there was a lot of small-pox in her town and none were dying. I wrote her to not be alarmed, as a single case of small-pox in a town of that size would depopulate it inside of twenty-four hours. In a few days after that I received another letter from her, saying that an expert said it was chicken-pox.

The Doctor further says that inside of thirty days after his patients got well their skin was smooth and no marks left. Now that showed chicken-pox. Then he says it was slightly contagious, some members of the family not having it at all. That pointed to chicken, as small-pox is the king of all contagious skin diseases. What seems to trouble Dr. Ayers most was that some of his patients had a similar eruption some three months before this. While I did not see your cases, yet I would say that they had in November what the older writers called febrile lichen, and in January they had chicken-pox.

Now if the small-pox gets among those patients of yours that had the so-called small-pox, you will see them die like sheep. I want to call your attention to one thing, to-wit: If that eruption you write about is small-pox then why vaccinate at all; for any of them will tell you that they had rather have it than to be vaccinated. If you think that was small-pox, then you should at once quit blowing your vaccination horn.

I want to call the profession's attention to one thing: If the doctors do not stop this calling of chicken-pox small-pox then vaccination will soon be a thing of the past. You will get the people to thinking there is no danger in having the small-pox, and you can not get them to be vaccinated at any price. Chicken-pox is to small-pox what a mosquito is to an elephant. If the Doctor wants to visit a patient that has small-pox I would advise him to get a clothespin and put on his nose, that you may not smell the most sickening of all odors, and a rubber stopper in each ear that you may not hear the groans, and a handkerchief over your eyes that you may not see the fright that no pen can describe. You may think that I am putting this down rather magnified, but you go and see a case of small-pox and see if you don't think I am correct.

If chicken-pox is small-pox then I say away with your vaccinations, for your remedy is far worse than the disease.

[Written for the MEDICAL BRIEF.]

A Plea For Liberality.

BY B. B. USSHER, M. D.,
Dedham, Mass.

The enlightenment that is brightening the dark places of the earth and ever illuminating the pathway of the belated churches, has seemingly failed to flood the profession which has needed it most, and the practitioners of medicine, as a whole, are moving slowly and painfully in a black procession that indicates the presence of the ball and chain of narrowness and bigotry, which hinders progress and reveals its presence by the clank of its links. What business have we to imitate the churches in their sectarianism? Is it not our part as scientists and apostles of helpfulness to sweep away the barriers that make us a laughing stock? What right has the allopath to label himself or be known other than as a physician? Has the homeopath stuck so closely to his creed that today he can boast of loyalty in his practice to "*similia similibus curantur* and the attenuated triturations and dilutions which were once the war cry of his 'pathy? Does the eclectic find it necessary to shout the Thompsonian shiboleth of "heat is life and cold is death," in order to proclaim that his medical sect is the only only? Does the educated hydropath, the competent osteopath, find it necessary to shout "Eureka" over his medical wares?

Shame on us, gentlemen of the medical profession, that we are not content to stand before the world as all-round men, wise enough to use any remedy that promises relief for human suffering. Shame on us for our unnecessary multiplication of medical colleges wasting our substance which, better spent, would mean higher education. Shame, thrice shame upon us that in these "United" States we are so divided medically that a reputable graduate of a reputable college becomes a criminal if he pursues his legitimate profession beyond the jurisdiction of his own state board. We have enough to bear without the gibes of the public over our divisions and ignorance of what is valuable in all schools. Let us be capable physicians, no more no less, and being that, bearing the credentials furnished by an accredited school of medicine, let reciprocity be the watchword of state boards, and the college diploma and home state board certificate be all that is necessary for the medical member to practice his profession anywhere under the flag of the American nation. The state board knows its own colleges, and its certificate should be a guarantee of fitness and a sufficient protection for the public. To be pathists is to be at the tail of the professions of science, and in this country there should only be licensed graduates, whose liberty to practice in any State of the Union should be one of the evidences of our departure from those antiquated notions that violate our dignity as educated gentlemen.

J. Edmund Stubbert.

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Editorial.

The Practical Man.

The practical man is the one who succeeds in life because he has a definite purpose to accomplish. He is alive to the opportunities which present themselves because he looks at life through his own eyes and does his own thinking. Sentimental considerations do not weigh with him. The practical man refuses to let anybody lead him. He accepts life as it is, and makes the most of actual conditions.

The practical man knows that he must look to himself for all the real help he will ever get. All the assistance any union, combine or other organization will give is purely theoretical; the actual restrictions and prohibitions laid down by them cramp a man's energies and narrow his opportunities.

A practical outlook on life and a strong individuality equip a man for the struggle according to Nature's plan. No artificial scheme of man, no organization, can compete with it. A man must assert himself, he must face the facts of life fearlessly; he must make his own plans and carry them out dauntlessly. No man can do this unless he early trains himself to be self-reliant, and to think logically, so that he is prepared to make rapid and just decisions.

No man, least of all the doctor, can avoid emergencies. They are thrust upon us from the most unexpected sources and at the most inconvenient times. Then the long-time habit of independent thinking, directed to accomplishing practical results, is invaluable.

Aspirations and ideals are good things in their way if a man has the requisite commonsense and knowledge of life to be governed by practical considerations. Too many men allow themselves to be diverted from the main issue by sentiment, or forfeit their rights as men to some self-constituted leader. Such men are to be pitied because they miss the joy and meaning of life through which they pass blind and deaf to its possibilities.

The practical bent of mind has always an eye to results. Progress and achieve-

ment are the things which interest the practical man. He is always on the lookout for new methods and better ways of accomplishing things. The practical man applies the test of merit every time. If he is a doctor he uses the remedies which give him results, no matter who makes them, or what anybody says about them. He takes the journals which give him information and help him in his practice. He even takes the journals of other pathies than his own, for the practical man is very broad-minded.

The practical man can not be made a fool of by anybody. No political party, union or other form of organization can use him.

Dangers.

It is always necessary to guard against the know-it-all crank, who has an axe to grind. There are a lot of fellows who are always talking about analysis. Do not forget that analysis is yet in its infancy.

The doctor's main concern is to cure his patient. Never lose sight of that fact. When the doctor finds by experience that certain drugs, whether compound or single, meet certain pathological conditions, commonsense says use them without regard to the prejudices of others.

Another important thing is to see that the patient takes precisely what the doctor prescribes. This is a matter of real importance in this day when there is so much sophistication of drugs.

It is nonsense to say that the best medicines are confined to one manufacturer. Each manufacturer excels in a few particular remedies on which he makes his reputation. This is true not only of drugs, but in every department of life. The discriminating man or woman learns where he can obtain the best values and buys accordingly. Wherever the doctor finds a reliable remedy in a particular form, let him use that one and no other. Do not let yourself be prejudiced or led by outside parties. Never use something "just as good." There is no such thing. It is either better or worse, and in this connection it is invariably worse.

Guard against the bigotry of those who want to use you. Take the trouble to think for yourself. Never be indifferent as to who makes the preparations you use. It is just as important to know your medicines are prepared by a reputable house as to know your coffee or your omelet are made by a qualified cook.

Another thing to guard against is the man who offers us laws to remedy our troubles. There is too much legislation in this country right now. Be on the lookout for the man who wants to use you politically.

Germany is reported to have the highest death rate of any nation. This is generally attributed to the large consumption of beer by the Teutonic race, as all heavy drinkers of this beverage must absorb an injurious amount of salicylic acid—the latter being used in the manufacture of beer to prevent fermentation.

A certain publication, largely read by the old women of both sexes, recently established the awful fact that there is more alcohol in a tablespoonful of many medicines than there is in an equal quantity of beer. The writer of the article referred to does not condescend to consider that beer is not administered by the drop or tablespoonful, but is usually taken by the glassful and sometimes even by the quart.

Food In Health and Sickness.

The question of food is an important one, and should be faithfully and conscientiously studied. The doctor is supposed to be able to say what is best to eat, varying according to ailments and constitutional conditions. He is often puzzled by a lack of knowledge as to the component parts of the ready foods on the market and he should, without delay, read up and be ready to say at a moment's notice what is best suited to the conditions, and if he is giving remedies, what would be the least antagonistic to results from such. We all know that the finely bolted flour from which our bread is made—the whiter in appearance, the better it sells—must necessarily show that the outer covering of the grains of wheat are eliminated in order to produce

this whiteness, and the cellulose is thus left out.

There are many prepared foods on the market, and the physician should become familiar with their make-up, and thus be able intelligently to commend them, as they are marketable at any time, while others, such as vegetables, are at times out of season, and, of course, at such times they are not good to eat because of forced growth and hot-house production.

[Written for the MEDICAL BRIEF.]

Little Things in Treatment of Little Folks.

BY LINCOLN PHILLIPS, M. D.,

Professor of Pediatrics in the Pulte Medical College, Obstetrician to the Bethesda Hospital, and Consultant to the Protestant Home for the Friendless and Foundlings, Cincinnati, Ohio.

With a tremendously decreased birth rate among the well-to-do classes, and with an increased death rate among the middle classes, due to the overcrowding in our large cities, we may well consider the question of race suicide.

At the present time about twenty-five per cent of all deaths occur in the first year of life, and thirty-five in the first two years. Are these figures not a little alarming? I fear the pathetic little white hearse is making too many trips to the graveyard. No one can question the fact that many of the poor, deserted, unclaimed waifs of the city, burdened by the heritage of sin and disease, are far better off dead than living. At the same time, we must not forget that these are only a small part of the great total.

This is the age of specialists, and I believe that those physicians who have a natural skill in treating infants and children should make a special study of the subject. Still the physician can not do it all, he must have the co-operation of city officials and citizens.

The two leading causes of the large death rate in the cities are (1) unsanitary surroundings and (2) a poor milk and water supply.

The proportion of infants requiring artificial food is steadily increasing, and we are all aware of the fact that that means more deaths, even under the most favorable circumstances; but when the noise and vitiated air of the densely populated centers, together with the poor water and bad milk, are considered, the prospect is far from encouraging. In the sweltering heat of the summer, the drawn, emaciated little ones make a pathetic picture indeed. The societies that are laboring to furnish a better milk supply and fresh air for the little ones are worthy of support and confidence. Our cities are not as keenly alive to the evils of unsanitary surroundings as they should be; if the profession of medicine had never done anything else than to demonstrate the necessity of pure air and sanitary conditions in the stamping out of disease, it had not lived in vain.

Referring to the little things in the treatment of little folks, I would say that so far as the physician himself is concerned, tact, keen power of observation and attention to small details are prime requisites of success. The infant's symptoms are objective ones, and how much does the treatment hinge upon the power to observe closely! I believe there are very few physicians, myself included, who are really suited to practice among children. He who has not real love and sympathy for children, who can not enter into their little pleasures and thoughts—can never hope to make a success with them. At a very tender age they can "read us like a book." Tact in handling children is a jewel of brilliant lustre. To observe, examine and do whatever is needed without the little one knowing what is being done is skill of a high class. The general practitioner can scarce take the time that is needed in making this call. Suppose he enters the house when the child is cross or angry. It is crying and nervous; the mother is nervous, and it makes him nervous, and in trying to get at the condition, they all get more nervous. What can be accomplished under such circumstances? Obviously the thing to do, unless the condition is one demanding immediate attention, is to retire to some other part of the house until the ruffles can be straightened out and the waters calmed; then and then only can the picture be obtained. Here patience is indeed a virtue.

It takes twice as long to take the case as it does the adult case. Why? Because the adult can tell his own story, but the infant has to depend upon the story of the nurse or mother and his own little mute signs.

Every detail must be gone into. What is baby eating? When? How much? When does he sleep? How does he sleep? And a thousand and one little things, as to fresh air, habits, etc. Many of these things you must actually see for yourself or the nurse, or even the mother, will mislead or deceive you purposely or not. Stripping the child will oftentimes render a diagnosis easy where before it was hard.

Insist, and again insist, upon regularity in method as to feeding, sleeping, bathing, etc. It is surprising what can be accomplished by judicious training. The little folks acquire knowledge by what we teach them and by their own observation. A baby can be taught to go to sleep at a certain hour in its own bed, without breast or bottle and without a light just as well as it can be taught the opposite.

Noise, excitement, irregular hours and habits make sick babies. For the first year of life the great nervous system is developing at a marvelous rate. It is a mine ready to explode on the least provocation. How important then is regularity and quiet. I have no patience with parents who want to drag a baby from one place to another, let every one handle it, trot it, and excite it. Another point along the same line: We do not do our duty when we neglect to instruct parents in reference to punishment of children, telling the children the policeman will get them, cut off their ears, etc. Many an idiot and nervous wreck is the result of such training.

Raising babies on artificial food in our cities is a fearfully discouraging task. Above all else, here is where attention to detail and little things count—attention not for a day, but weeks and months. The majority of sick, emaciated, rachitic, deformed children, brought to my clinic are the result of poor artificial feeding. As to the little things in diagnosing babies' troubles—what a mine of information we have in the sleep, the cry, the gestures, and the expression. The single sharp, shrill cry in the dead of night—tuberculosis of brain or bone; the suppressed cry—pleurisy; the "quack-of-the-duck" cry—post-pharyngeal abscess; the sudden and long-continued cry, with every evidence of pain—ear-ache or colic. And so we might go on indefinitely.

As to the prognosis—"babies get sick quickly and get well quickly"—but we must never lose sight of the fact that with the unstable nervous system little troubles may prove fatal.

As to treatment—Holt has taken good advice from our school when he says: "Never give a dose of medicine to a child without a positive indication. Never give a nauseous dose of medicine when a pleasant one will do. Small doses frequently repeated are better than one large dose and are not so apt to upset the stomach."

I feel as he does that children are drugged too much, that better results can be obtained by other means.

To sum up: The children's doctor must be especially fitted by nature, ability and rigorous training. Neglect or carelessness in regard to little things marks the distinction between a mediocre man and an expert.

1004 McMillan Street.

[Written for the MEDICAL BRIEF.]

Asclepias.

BY A. B. ERWIN, M. D.,

Bangor, Ala.

Having just read your editorial on asclepias in October BRIEF, I am pleased with your article. I have used asclepias twenty-five years, in colds and fevers. I cut short those continued fevers, typho-malaria (not typhoid), sponge patient, and give liver medicine, if necessary. When fever is lowest, which generally occurs in the latter part of the night, give quinine in three or four portions, and when last portion of quinine is given then give Dover's powders and asclepias t. i. d. (of crude root), enough to start perspiration; hot as patient can drink and enough to keep up perspiration until evening; repeat next day to keep fever from returning. The Dover's assist the tea in perspiration. I have it always on hand, never without it.

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[Written for the MEDICAL BRIEF.]

States of Mental Depression.

BY T. OUTTERSON WOOD, M. D., F. R. C. P. (EDINBURGH), M. R. C. P. (LONDON),

Senior Physician to the West End Hospital for Nervous Diseases, Welbeck Street W., and President of the Medico-Psychological Association of Great Britain and Ireland. London, England.

Apart from the tendency towards melancholia resulting from the invasion of the consciousness by morbid thoughts, before touched upon, there are certain definite states of mental depression of varying degrees of intensity which are noticed among patients whose mental condition is in other respects free from disorder. Patients suffering from these states of depression form a fairly numerous class in the out-patients' room of our hospital. They apply for treatment on account of this depression because they are "so low spirited" that they are unable to follow their ordinary avocation or to take an interest in the daily round of life. This condition seems to affect both sexes equally, and to appear at various ages, and in a large number of cases no apparent cause can be found to account for it. Yet these states of "mental dejection," "despondency," "loss of heart," and the "giving up of hope," are found lying on the very threshold of melancholia, and are the opposite to the state of exaltation and the delirium of grandeur which usually usher in conditions of mania, especially the mania of general paralysis of the insane, megalomania, and the like.

The disorder (for it can not in this incipient form be called a disease) is characterized by a feeling of unhappiness; all natural feeling of buoyancy of spirits, and the healthy, hopeful looking onward, are damped, while the power of fighting against the weight of despondency is diminished. The appearance of the patient is in keeping with the mental state; the expression of the face is that of unhappiness and uncertainty, and the attitude of the body is that of listlessness and want of energy, thus showing a flaccid condition generally as distinguishing it from the well-known condition of flexion so typical of the pronounced melancholic. Another striking difference between this state of depression and melancholia proper is that in melancholia there is a characteristic tendency to tears. The melancholic is "full of tears," either loud weeping and wailing, or a steadily constant lachrymose condition that remains and persists during the waking state, excepting, of course, certain cases of melancholia with stupor.

Again, these patients, before strangers, and even in the presence of those more intimately associated with the affairs of their daily life will not show this substratum of depression and unhappiness—it is carefully masked. The patient will

say: "I can not understand this peculiar feeling, yet it exists, and I suffer intensely; but it is no use mentioning it to those around me, for they can not appreciate it. When I have communicated my miserable feelings to my friends, the only comfort I get is 'Oh, you must pull yourself together and throw it off.'" And so our patient goes on and suffers. The conditions of civilization have, however, throughout his life taught him to control his features and to avoid giving way to his emotions, in order that the expression of his face may not be an index to his feelings, or, as Shakespeare so aptly puts it, when Macbeth gives way to the intensity of emotion, and Lady Macbeth warns him: "Your face, my thane, is like a book where men may read strange matters." Thus it happens that the feelings of depression are hidden from his friends and associates. This, however, can only be for a time. No man can for long be unhappy, whatever may be the cause, without it affecting his general health. For soon the evidences of malnutrition appear, and the disordered functions tell their own tale in the lack-lustre eye and the altered complexion of the skin, while the coated tongue and the dry, cracked lips, plainly tell of the failing appetite and the envolvement of the gastro-intestinal tract in the general condition of physical deterioration. By degrees the depression, which at first was intermittent (but which under the influence of change of scene and cheerful surroundings could for a time be kept out of consciousness), gradually becomes more or less continuous, and invades a period which should be devoted to rest, so that sleep becomes fitful, unrefreshing, and disturbed, the general health becomes more and more undermined, and there is a loss of the usual energy and capacity for work.

It often happens, on inquiring into the history of these cases, we find that either one or the other of the parents has been nervous or subject to attacks of "lowness," and that the patient himself has suffered from these attacks more or less all his life, but that this one has been of longer duration and greater intensity, and has not given way to simple remedies as formerly. Again, these cases of mental depression are frequently found among the members of families who are neurotic, sensitive, highly-strung, emotional, uncertain, unstable—always at the top or bottom of the circle, rarely at rest "on the center."

Obviously, the danger in these cases is for the attacks of depression to recur and persist until they gradually and almost imperceptibly sail over the line of disorder and drift slowly away into the depths of melancholia. Melancholia is an insidious disease. It does not burst out into violent manifestations, and by vigorous physical display proclaim the mental storm raging within, as in a case of acute mania. Melancholia is of slow growth. It begins as depression, unnoticed and unrecognized (as in the cases we are now considering), and when the disease is developed the friends will tell us they have noticed a gradual change coming on for a long time—maybe months—before we are consulted.

In these cases of depression we have as a disorder the earlier symptoms of what may develop into disease. Fortunately, the patient retains the power to act, and by coming for advice give us proof that the substratum of depression is a shallow one, and the prognosis is, as a rule, favorable.

As illustrating the class of cases under consideration, the following brief notes are interesting: The case is that of a gentleman seventy-three years of age, of independent means, and possessed of everything calculated to make him happy. For years he has suffered from attacks of mental depression. Between them he is remarkably cheerful, eats well, drinks well, and for his age, is a brisk and energetic man, who will walk his six or eight miles a day with ease. The first time he consulted me—some four years ago—he walked into my consulting room, erect and firm on his legs, and certainly, from his facial expression, depression was the last thought to enter my mind with regard to him, yet he unfolded to me a plain and finely descriptive account of his mental distress. He said he felt so miserable at times he did not know what to do, that he was afraid he might become paralyzed, or that his mind might give way. His physical condition was excellent, and with the dynamometer his right

hand grasp was eighty and the left seventy-five. the heart's action was somewhat weak, pulse eighty-four, arteries soft and compressible. The exhibition of liq. strychninæ (three minims) sp. chloroformi (ten minims) tinct. aurant. (one-half drachm), aq. (ad. one ounce), t. d. s., soon strengthened the heart's action, and in a short time, after a trip to the seaside, he was as well as ever again, but ever and anon he was the victim of attacks of the same mental depression, which in due course, under appropriate treatment, disappeared.

One might go on enumerating *ad infinitum* similar cases which, in the great majority of instances, run a brief course toward recovery. Doubtless, now and then the symptoms deepen and go on to melancholia, becoming a veritable insanity, and they then leave the range of the cases under consideration, and fall under the class of developed mental disease, which is not within the scope of this paper.

With regard tc the general principles of treatment, the first indication is to improve the general health. Encourage a healthy action of the various excretions, and, removing as far as possible the exciting causes—if one may so express it—of depression, induce a healthy mental tone. This is best accomplished by a change in surroundings, change of the ordinary round of daily life, and by transplanting the individual into a healthier (mental) atmosphere, encourage a return to the nomal. With regard to specific medicinal treatment, much will depend upon age and temperament of the patient. My experience goes to show that we must not look to "drugs out of a bottle" to do much beyond the storing and keeping well up to the normal line the general health of the individual. Let him live as much as possible in the open air, take as much exercise as he can short of over-fatigue, and engage in some useful and congenial occupation. If it can be managed, a change of work will often have a most salutary effect, and act as a strong mental tonic.

Enclosed find one dollar. I enjoy reading the BRIEF.—THOS. SHOCKLEY, M. D., Nebo, Mo.

[Written for the MEDICAL BRIEF.]

The Care of the Eyes in Health and Disease.

BY E. LUCAS HUGHES, M. R. C. S. (ENG.), L. R. C. P. (LOND.).

Ophthalmic Surgeon to the Hope Street Hospital, Liverpool; Fellow of the Royal Institute of Public Health, Liverpool, England.

There are several points connected with the anatomy of the eye which are of interest. As regards the relative size of the eyeball to the orbit, the eyeball takes up only about one-half the actual space, because of the large space behind, between the eyeball and the optic foramen. Besides the eyeball we have the optic nerve, muscles, blood-vessels, lymphatics, and a large amount of adipose tissue, which cushions the eyeball, permits of movements and prevents injury. The limiting membrane between the cellulo-fatty tissue and the eyeball, Tenon's capsule, is also behind the conjunctiva, and reaches behind this membrane almost to the margin of the cornea.

We can readily see from this description how much accommodation there is for an abscess, for a tumor, or for a foreign body in the orbit; indeed, a tumor can grow to a large size before it begins to seriously press upon the eyeball, and foreign bodies can lodge in the fat for a considerable time without causing disturbance. The eyeball is nearer the upper and lower margins of the orbit than it is to its sides, and the greatest interval between the eyeball and the orbital wall is on the outer side. Therefore, it is easier to reach the interior of the orbit from the outer side; in enucleation, however, the optic nerve of the left eye is, for other reasons, more readily divided from the inner side.

The orbital fascia is interesting chiefly for its forming the check ligaments, internal and external, the capsule of Tenon, and the suspensory ligament, which latter forms a hammock-like sling supporting the eyeball and preventing it from sinking downwards. In operations requiring the removal of the superior maxilla, the attachments of this suspensory ligament should, if possible, be left intact. The check ligaments prevent excessive action

of the recti muscles, and when these muscles are divided they prevent them from retreating far back into the orbit.

For all practical purposes the capsule of Tenon envelops the posterior two-thirds of the eyeball, although some authors give a larger envelopment; indeed, they say only the cornea is uncovered by it, a thin film of it reaching under the conjunctiva to the limbus of the cornea. It is a thin, translucent, fibrous membrane, formed by the posterior lamina and part of the anterior lamina of the orbital fascia, practically extending from the insertion of the recti muscles over the sclerotic to the place of entrance of optic nerve, where it is reflected backwards over the sheath of the optic nerve to the apex of the orbit. It does not blend with the nerve, and there are two lymph spaces formed by it in communication with one another, one between the capsule and the eyeball, called Tenon's space, and the other between the capsule and the sheath of the nerve, called the supra-vaginal lymph space. There is loose areolar tissue which permits free movement, and the eye may be said to form a sort of ball and socket joint, the capsule of Tenon lining the socket. The eyeball is held in position in the socket by the recti muscles, and the socket, or capsule of Tenon, is held in position by the attachments of the orbital fascia. The muscles being partly attached to the capsule are able, therefore, to move the stump after enucleation.

The extrinsic muscles of the eyeball consist of the four recti, which pass forward on each side and are inserted just in front of the equator of the eye. There are also the levator palpebræ superioris, and the two obliques.

The interesting thing about the levator palpebræ is the way in which it forms a broad aponeurosis between the two portions of the lachrymal gland, and then splits into three lamellæ. The uppermost lamella blends with the superior orbito-tarsal ligament; the middle lamella, the most easily seen, is inserted into the anterior surface of the upper border of the tarsal cartilage; and the lower lamella is attached to the conjunctival fornix. The usefulness of this arrangement is obvious. The margins of the tendon being attached to the margins of the orbit prevent excessive action.

The superior oblique is peculiar on account of its very familiar little pulley or trochlea, which enables it to rotate the eyeball inwards, and draw the cornea downwards; in fact, in a direction which is that of an axis, set at an acute angle to the direction of the force exerted by its own fibers.

The inferior oblique differs from the other muscles of the eyeball by having its origin in the front part of the orbital floor; its fibers, therefore, pass backwards as well as outwards and then upwards, embracing the eyeball so as to be inserted upon its upper surface, and so situated

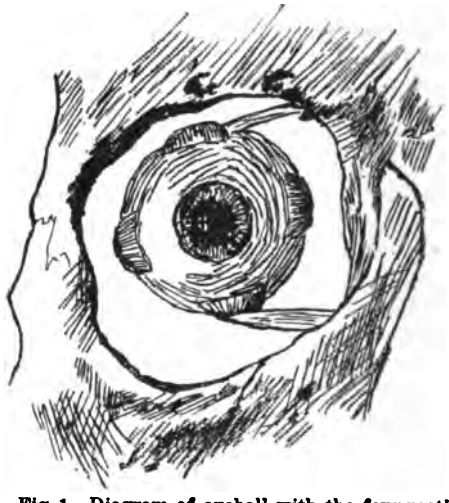

Fig. 1. Diagram of eyeball with the four recti muscles cut off near their insertion showing the ample space in the orbit. The tendons of superior and inferior oblique are left entire.

as to directly oppose the action of the superior oblique. The two obliques together act somewhat in harmony in abduction. The action of the other muscles is obvious.

The eyeball is an apparatus for bending the rays of light, so that they theoretically form pencils coming to fine points (foci) upon a sheet of delicate nerve tissue (the retina), specially adapted to receive them. In this way the impression is concentrated, so as to be conveyed to the brain. The endings of the optic nerves are arranged so as to be out of the way of ordinary nerve stimulation. There is some extremely sensitive arrangement by means of which the ether waves we call

light affect the nerve terminals of the retina. Just as death is the negation of life, so darkness is the negation of light. We see objects because they reflect to us more or less light. If light be absent we fail to see the object, because there is no light for the object to reflect; that is, assuming that we have normal visual powers. No matter what the stimulus may be, electric, mechanical, or the stimulus produced by the ether waves of light, the sensation of light is always sent to the brain by the nerve terminals, the rods and cones of the retina. A familiar example of mechanical stimulation is that flash of light experienced from a blow.

Strange to say, these end organs of the nerve-fibers, the rods and cones of the retina, are not pointed towards the light as it streams through the pupil, but are pointed backwards towards the sclerotic, so that the light waves traverse the translucent nerve-fibers and the cellular and granular layers of the retina before they touch the rods and cones themselves. The rods and cones are, therefore, the specific organs for taking up the influence of the waves of light; they are present everywhere in the retina, except where there is the blind spot, which latter corresponds to the entrance of the optic nerve.

The greatest sensibility to light exists at the little pit to the outer side of the entrance of the optic nerve, the fovea centralis. The radiating nerve-fibers here bend towards their rods and cones, and none of them pass over it. The retina at the fovea, in fact, is represented only by the layer of rods and cones, the other layers of the retina being absent. As we get towards the ora serrata, the periphery of the retina, sensibility gets less and less; that is to say, there is a duller, less distinct sensation, and the form of things can not be so clearly distinguished. It is entirely with reference to central vision that we test the refraction, accommodation, and the visual acuity. For perception of movements, however, as well as for slight differences of luminosity (the light sense), the periphery of the retina is actually more sensitive than the fovea centralis. Our visual sensations are of three different kinds: We take cognizance of the form of an object (the space sense); the color of an object (the color sense), and the brightness of an object (the light sense). Peripheral vision is of use in orientation; it enables us to guide ourselves and avoid obstacles; to take, so to speak, our bearings. If, for example, as we are walking, we look straight before us and there is a stone lying in our path, the latter forms an image in the periphery of the retina; in this case in the upper part of it. The stone, to be sure, is not

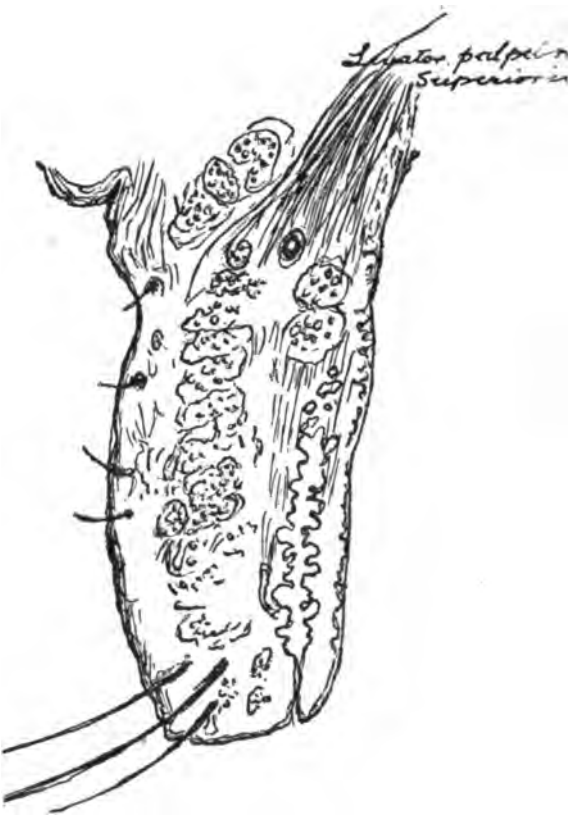

Fig. 2. Section through upper eyelid showing the way in which tendon of levator palpebræ superioris splits at its insertion. It spreads in the form of a fan and then divides into three lamellæ as shown in cross section. Other structures of eyelid faintly indicated, glands, muscle fibers of orbicular, etc., cut across. The blood vessel cut across at insertion of middle lamella into tarsal cartilage is the arcus tarseus superior.

distinctly perceived, but still it excites our attention. Our gaze is directed at it, it is then seen distinctly, we recognize it as an object and avoid it. The same thing happens if we go out in the street and men come towards us from one side. The images falling upon the periphery give us warning signals, which make us cast our eye directly upon the objects which excite

the images, and it is precisely moving objects that are most sure to excite our attention; since, as just stated, the peripheral portions of the retina have a high degree of sensibility for the perception of movements. It is almost impossible not to "turn the eyes" the moment anything peripherally lying, or especially moving, does catch our attention, the turning of the eyes meaning that rotation of the eyeballs as will bring the foveæ under the objects image.

Accommodation is the focusing, or sharpening, of the image looked at. This is brought about by the contraction, or relaxation of the ciliary muscle. The crystalline lens grows more convex when a near object is looked at, and becomes flatter when the object recedes. This is due to the antagonism of the circular ligament, in which the lens is suspended, and the ciliary muscle. When the muscle is relaxed the ligament assumes a spread-out shape, which keeps the lens rather flat. When the muscle contracts the ligament relaxes its pressure on the lens, and the lens, being highly elastic, becomes more convex. Thus, the lens is more refractive when the muscle relaxes. Accommodation for near objects is thus the more active change; when we look far off we simply let our eyes go passive. Contraction of the pupils and, also, convergence, accompanies the accommodative act. Time will not permit my going into the question of binocular vision, suffice to say that it entirely depends upon corresponding points of single visual direction, which exist upon the two retinæ.

The Perception of Distance.—When we look about us our eyes are incessantly moving, converging, diverging, accommodating, relaxing, and sweeping over our field of vision. The field appears extended in three dimensions, with some parts more distant and some more near. For perception of distance to be perfect it needs the two eyes. Soldiers in judging distance for shooting have to use the two eyes, although one eye is closed when actually taking aim. Distance, subjectively considered, is an altogether peculiar content of consciousness. According to Professor James, convergence, accommodation, size, degree of brightness, all give us special feelings which are signs of the distance feeling, but not the distance feeling itself.

The Perception of Size.—The dimensions of the retinal image determine, primarily, the sensations on which conclusions as to size are based, and the larger the visual angle the larger the retinal image; since the visual angle depends on the distance of an object, the correct perception of size depends largely upon the correct perception of distance; having formed a judgment, conscious or unconscious as to that, we conclude as to size, from the extent of the retinal region affected. Most people have been surprised that what appeared a large bird in the clouds was only a small insect close to the eye; the apparent large size being due to the previous incorrect judgment as to the distance of the object. The presence of an object of tolerably well-known height, as a man, also assists in forming conceptions (by comparison) as to size: artists, for this purpose, frequently introduce human figures to assist in giving an idea of the size of other objects represented.

The System of Colors is a very complex one. If one takes any color, say green, one can pass away from it in more than one direction, through a series of greens more and more yellowish, let us say towards yellow; or through another series more and more bluish towards blue. The colors have this peculiarity, that many pairs of them, when they impress the retina together, produce the sensation of white. The colors which do this are called complementaries; as examples, we have spectral-red and green-blue, spectral-yellow and indigo-blue. Green and purple again are complementaries. All the spectral colors added together also make white light, such as we experience in the sunshine.

The Duration of Luminous Sensations.—This is greater than that of the stimulus, a fact taken advantage of in the making of fireworks. An ascending rocket produces the sensation of a trail of light, extending far behind the position of the bright part of the rocket itself at the moment, because the sensation aroused by it in the lower part of its course still persists. So shooting stars appear to have luminous tails behind them.

By rotating rapidly before the eye a disc with alternate white and black sectors, we get for each point of the retina alternate stimulation (due to passage of white sector), and rest (when a black sector is passing). If the rotation be rapid enough the sensation aroused is that of a uniform gray, such as would be produced if the white and black were mixed, and spread evenly over the disc. In each revolution the eye gets as much light as if that were the case, and is unable to distinguish that this light is made up of separate portions reaching it at intervals; the stimulation due to each lasts until the next begins, and so all are fused together. If one turns out suddenly the gas in a room containing no other light, the image of the flame persists a short time after the flame itself is extinguished. If we open our eyes instantaneously upon a scene, and then shroud them in complete darkness, it will be as if we saw the scene in ghostly light through the dark screen. We can even read off details in it which were unnoticed while the eyes were open. This is the so-called primary positive after-image. According to Helmholtz, one-third of a second is the most favorable length of exposure to the light for producing it. Negative after-images are due more to complex conditions, in which fatigue of the retina is usually supposed to play the chief part.

Intensity of Luminous Objects.—Black is really an optical sensation. We have no black except in our field of view; we do not, for instance, see black out of our stomach, or out of the palm of the hand. Pure black, however, is only an abstract idea, for the retina itself (even in complete objective darkness) seems to be always the seat of some internal changes which give some luminous sensations. This is what is termed "idio-retinal light;" it plays its part with all after-images when the eyes are closed. Any objective luminous stimulus must be strong enough to give a sensible increment of sensation over and above this "idio-retinal light." Another point is that there must be a certain amount of luminous intensity in an object for its color to be anyway distinguished. Thus, for instance, in the dark all cats appear grey. As the light increases we distinguish the colors, first the blues, and last of all the reds and yellows are seen, up to a certain point of intensity, then they grow indistinct again through the fact that each then takes a turn towards white. At the highest bearable intensity of light all colors are lost in the blinding white dazzle. This has been spoken of as a mixing of the sensation, white, with the original color sensation; however, it is not a mixing of sensations at all, it is a replacement of one sensation by another, due to a changed neural process.

Amongst reprehensible and idiotic practices there is nothing, perhaps, worse than that of blinding young children by making them live in an environment of everything white, one may call it "color starvation;" the baby is clothed in white garments, it sleeps in a white bassinette, the nurse is dressed in white, the child is sent out in a white perambulator, in which it lies in the summer time in the glaring

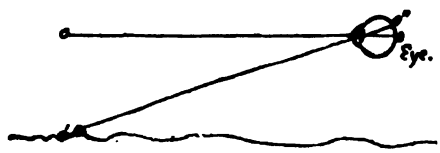

Fig. 3. Diagram illustrating peripheral vision, or arientation of objects in space, *i. e.*, the ascriptions of objects seen to the place where they acually belong. O is object looked at, O′ is another object such as a stone is the path O″ image of same on the upper edge of retina within field of vision.

sun, staring at the sky; then the mother wonders what is the cause of something going wrong with the eyes, and it is, indeed, a providence if the cause is checked in time by a wise doctor, and the mischief is nothing more than acute conjunctivitis.

Another foolish proceeding is the producing of extreme convergence by the frequent holding of bright and attractive toys quite close to the child's eyes. This is a great cause in the production of squint. As the child grows older it becomes more and more necessary that he should not be over-exercised in his powers of convergence. Indeed, the first ten years of life are a critical time for the eyes, and the more out-of-door amusement a child has, the less he pores over books, threads beads, and in other ways exercises his accommodation, the more he is likely to escape having to wear glasses for some error of refraction. Some of the kinder-

garten schools are very objectionable on this account. Whatever advantages to civilization there may be in compulsory education, there is no getting away from the fact that the eyesight of our people is deteriorating by our increased education. The superior shooting of the Boers, in the late war, over some of our soldiers was due to this fact. Poor children are sent to school in the morning, sometimes without any breakfast; they are made to pore over books and writing in dusty rooms, perhaps the rooms very badly lighted, and there is the strain of competition; the general health suffers, and is it to be wondered at that the eyes can not bear the strain?

Dr. Norton wisely observes: "The school life of a growing child should be so regulated as to secure the best mental advancement and, at the same time, the best physical development." Is this done by our great educational system, which compels parents by the law of the land to send their children, weak, badly fed, and unhealthy, to schools where their eyesight is practically at the mercy of, maybe, a careless and thoughtless teacher? When the mischief is fully developed the poor child is sent to an ophthalmic hospital, where, perhaps, an over-worked staff has to deal with great numbers, with insufficient time to go thoroughly into each case. This results often in anything but an accurate prescription for glasses, which are obtained cheap, badly fitting, and of the poorest quality. The parents may be too poor to afford anything better.

Examinations are now made in the primary schools, and nearly all the children enter with normal eyes, but they soon begin to develop errors of refraction. In America and Germany there is more myopia, in this country more hyperopia, and astigmatism everywhere is exceedingly common. This latter is the worst of all to deal with, and needs the more expensive glasses, as the lenses have to be specially ground by a skilled workman, and with a machine that costs the manufacturing optician about twenty-four hundred dollars. In American universities the percentage of myopia has reached seventy per cent, and in the higher-grade schools twenty-five per cent. This shows that the number of near-sighted pupils increase from the lowest to the highest schools, and in direct proportion to the length of time devoted to the strain of school life. The only way to prevent all this is the making of careful and frequent examinations of the eyes. Schoolmasters and teachers should have a card of simple test-type letters against the wall, and at the proper distance of twenty feet, the child who can not see the type should be at once sent to an oculist. If the child complains frequently of headaches while studying, or seems to be getting nervous, anemic, etc., the teacher's duty is to suggest to the parents the wisdom of consulting a doctor. We can get very acceptable false teeth when our own are lost from neglect, but the same can not be said of artificial eyes.

All children with inflamed eyes should be kept from school, not only because an inflamed organ must be kept at rest, but because many inflammatory affections of the eyes are infectious, and one can not always at once say which are the infectious cases. A very severe form of acute conjunctivitis is highly contagious, caused by the Koch-Weeks' bacillus, and vulgarly known as "pink eye."

There are many other faulty conditions in the upbringing of children, and in school life—badly-printed books; home lessons often done late at night, with a very poor artificial light, and when the body is tired and the brain sluggish; a hard and fast curriculum, whereby weakly children are made to compete on equal terms with the strong and able; cramming, insufficient out-door exercise, bad light, bad air, too close and prolonged application; these things both permanently damage the general health, and this most important of all special senses, the eyesight. There should be a frequent change in educational work, the blackboard should be much used, and there should be frequent intervals of rest. Children should be sent early to bed, and not allowed to sit up reading sensational papers and novels. The flood of more or less trashy literature in this country is doing great harm to the eyesight of young people.

School buildings should be built away from narrow streets, so as to have good light and good air, and a surrounding

large, open playground. Dampness should be avoided, and the ventilation and drainage perfect. Sufficient light is of the utmost importance. Cohn says: "The quantity of light can not be too much;" while Javal says: "That every portion of the room should be so flooded with light that the darkest place will have sufficient illumination on a dark day." According to Risley, the window surface should never fall below one square foot for every five square feet of floor space, and that this should be exceeded in many localities, on the north side of buildings, and on the ground floor. The color of the walls should be of some light shade of green, blue, yellow, or grey. The furniture should be of a light color, and roller shades of the same color as the walls should be lowered over blackboards, when the latter are not in use. The direction of the light is of importance, objectional cross-lights should, of course, be avoided, and, if possible, the light should be to the left and rear of the pupils. Dr. S. D. Ridley has drawn attention to the faulty construction of school desks and seats, placed at a wrong angle, which not only produces, according to orthopedic surgeons, spinal curvature, but, by excessive strain upon accommodation and convergence, becomes a source of grave danger to the eyes. The seat and desk should be so arranged that the child will find it easier to sit upright at his work than in any other position.

All that has been said as regards children in school applies equally to the adult. The eyes should only be used for near work when the body is erect; reading when lying down is bad, and the light should be good and fall on book or paper from the left side. A reading stand is not only a luxury but a necessity for those who do much reading. The best light is daylight, next the Welsbach, incandescent, or the electric light properly shaded and protected by globes. Gas and kerosene are good, but should be shaded by globes, colored white on the inside and tinted green on the outside. People ruin their eyes reading in the dusk, and in insufficient and unsteady light. The poor print of cheap newspapers, so frequently read by the dim light of a railway carriage, is very bad; also, the dangerous habit of reading in bed by candle-light. To those who indulge in these foolish practices one can not cry don't too often. Dr. Bell Taylor has published a strong condemnation of smoking as being a potent factor for evil to the eyes. Although excessive smoking is undoubtedly injurious, I am of opinion that if the digestion is good and the general health unimpaired, the smoking of good tobacco is not of itself such a *bête noir* as Dr. Taylor would have us believe. I think tobacco in any case is far less harmful to the eyes than the reading of the small print of newspapers by the wretched, unsteady light of railway carriages. Alcohol in excess, morphine, cocaine and other drugs are harmful. That nicotine does act harmfully upon the retina there can be no doubt, the eyesight of persons employed in tobacco factories is often greatly damaged, but smoking by sensible men, who are not enslaved by it, and who smoke in moderation, seldom does any harm to the eyes. It is very excessive smoking I deprecate. A man runs a great risk; he may establish a tolerance, or he may, like some of the arsenic-eaters of Styria, break down in the attempt. Sixteen or twenty cigars a day, with blindness to follow, is hardly to be desired, no matter how great our appreciation of the weed. Among all classes there is a prejudice against spectacles, although of late years this seems to be dying out; the use of the correct glass to those suffering from refractive errors, is one of the greatest boons to humanity. It is really a necessity in all but very slight cases. Glasses are frequently treated with great roughness and carelessness by their wearers. They are thrown about, they become scratched and dirty, and even well-fitting frames by rough handling are put out of shape. The centers of the lenses should be opposite the central vision, otherwise the patient is looking through prisms, and not benefiting by the accuracy of the prescription. The frame should fit the bridge of the nose and the face as a glove fits the hand. Folders are wretched things; if worn they should never be folded, for they easily get scratched and misshapen. It is most important that the best quality only of lens should be obtained. The best crown glass is better than a pebble, and the

frames should be carefully adjusted by a thoroughly competent optician. Often the careful work of an oculist is undone by a careless tradesman. The custom of allowing incompetent opticians, jewelers, chemists, watch-makers and peddlers to test the eyes and fit glasses can not be too strongly deprecated. Said a little working watch-maker to me one day, when I found him in his shop testing, in his ignorant way, a woman's eyes, "If they are such fools as to come to us, sir, let it blind them. Others do it, why shouldn't I?" The prevalent habit of going without glasses for reading late in life is also bad. The public should be taught that in all normal eyes glasses are needed for near vision after forty.

In conclusion let me say that the health of the eye depends greatly upon the general health of the body. By obeying general laws of hygiene the usefulness of the eyes will be best maintained.

[Written for the MEDICAL BRIEF.]

Tent Life in the Treatment of Tuberculosis.

BY J. EDWARD STUBBERT, M. D.,

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During the past two years tent life for consumptives has become very popular among the patients themselves in the eastern section of the country. Although such method of treatment was practiced quite extensively for a long time in the Western and Southern States, an idea seemed to be prevalent, at least among the profession, that tent life would be safe and advantageous only in dry, more or less warm, climates. The results obtained, however, by observers in the New England and Middle Atlantic States, have disproved that theory, just as experience has demonstrated the fallacy of many other therapeutical ideas.

During the summer of 1903, the writer placed a number of patients in tent life in the mountains of Sullivan County, especially at Liberty, and the beneficial results obtained, as compared with that of house, hotel, or sanitarium life, were so marked as to induce quite a number of patients to continue this out-of-door life even through the inclement weather of the unusually severe winter which we have just passed.

During the coming year tent life will be carried out very thoroughly in Sullivan County, notably at the Edgemont Sanitarium, and also in private camps.

Where tent life is not possible, more or less the same benefits are attained by directing the patient to sleep on open verandas in the country, and fire-escapes and roofs in the city.

There is an erroneous idea that unfortunately possesses the minds of many patients, viz., that sleeping in a room with open windows is as beneficial as absolute out-of-door life.

It is important that the tents in which the patients live should be properly constructed. Many forms of construction are recommended, but in most there is too great a tendency to copy the construction of a house. The idea of a canvas roof seeming to be all that is necessary to persuade the patient that he is enjoying tent life.

In this section of the country platforms should be erected about six or eight feet above the ground. On this platform should be pitched the tent, the roof of which should be fixed on, but all four sides should be capable of being rolled up, or at least drawn out as flies during the day time; in fact, they should not be closed at all, except during the hours which the patient requires for privacy in dressing, etc.

The arrangement of the tent must be according to the individual taste of the patient. There is no reason why he should be compelled to sleep on a cot, unless he so desires, and he may be surrounded with all the comforts of a room at home, minus the protection of its four walls.

The location of the tent is another important factor. It is better that it should be pitched on the side of a hill, where drainage will be perfect, and also avoid too violent winds. Too much shade from trees should, however, be avoided, and, therefore, the tents should be pitched in

the open, rather than in the forest. Sunshine will not only keep the tent in a sanitary condition, but is one of the most valuable therapeutic agents we have in the treatment of common tuberculosis.

The fact that the patient is enjoying out-of-door exposure and tent life does not preclude the necessity of medical supervision and appropriate symptomatic treatment, which should be just as thoroughly carried out among these patients as those in the sanitarium.

Where colonies are established it is well to have the tents as widely separated as is consistent with convenience of sanitary administration. Camps occupied by a considerable number of patients should be well furnished with nurses, and as careful a supervision of the patients and methods of life maintained as in a sanitarium.

Where it is possible and expense not a matter of consideration, it is well to erect a chimney on the weather side of the tent, with an open fireplace, which can be utilized during the very chilly or rainy weather, for the double purpose of giving comfort to the patient during dressing hours, and also a means of drying their wearing apparel.

Some of the tents occupied by patients of the writer during last summer were furnished in this way, and, in addition, were fitted with electric lights and provided with bath rooms and toilets, which were built on the windward side of the tent, and thus leaving it possible to open up all of the other three sides.

[Written for the MEDICAL BRIEF.]

How to Develop the Breasts.

BY T. HENRY WHITING, M. D.,
Elgin, Ill.

To harden and give formation to the same bathe the breast with the following lotion:

℞ Alum (Pulv.)..... ½ drachm.
Spirits of Camphor..... ½ drachm.
Tinct. of Myrrh..... ½ ounce.
Alcohol..... 1 ounce.
Peppermint Water..... 3 ounces.
M.

After using the lotion with gentle pressure the skin will glow and new life will be felt coming.

[Written for the MEDICAL BRIEF.]

The Treatment of Psoriasis.

BY HENRY M. DEARBORN, M. D.,*
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From ancient times psoriasis has been considered an incurable disease, an affection that could be relieved for months at a time, but was likely to recur. Within a few years experience has prompted us to amend our former prognosis, and feel decidedly more hopeful regarding its permanent cure. In order to establish any systematic or clear indications for treatment we must study the disease in all its relations. This may be done under three heads:

1. The character and peculiarities of the patient. This may include the family history, occupation, habits of life, as regards diet, exercise, and other features which go to make up the individual environment.

2. We need to study the peculiarities of the disease as to the primary location, tendency to invade other regions, the evolution of the eruption, its relation to seasons, especially the division of warm and cold parts of the year, and the subjective sensations, if any; the peculiar modalities, such as relief from warm bathing or cold bathing; aggravation or relief from exercise; changes due to diet and the condition of the organs, especially the eliminating organs. Frequently there is inefficiency of the kidneys, and in a certain percentage of cases very defective elimination from the intestinal tract. Not infrequently patients affected with this disease take an inadequate supply of fluids, and are rarely troubled with thirst, even to a normal degree.

The clothing is also to be considered as to its relation in increasing an undue warmth of the surface. In this direction

* Deceased.

it is to be recognized that almost everyone is over-clothed and the skin too thoroughly protected from the outside air. Occasionally it will be found that some type of headache furnishes knowledge of the constitutional condition. Here again we must make a careful inquiry regarding previous eruptions and the eruptive history of other members of the family in the direct or collateral branches. Occasionally a clear history of eruptions in the preceding generation may be obtained, or even in two or three removes we may find something significant.

3. We must study the peculiarities of the eruption, whether it is superficial with abundance of scaling; what the evolution has been as to the rapidity of development and change; the amount of infiltration and degree of redness; the aggravations or ameliorations which occur in connection with the formation of lesions or the scales which cover them; the peculiarity as to the course of the disease in itself; infection of the skin, whether beginning upon the head and spreading downwards, or upon the trunk and spreading to the extremities, or on the extremities and involving the trunk or head later.

Having learned all the details possible under these three lines of inquiry, we will have gained a pretty clear picture of an individual case upon which we may base some plan of treatment. Here the element of time must be considered, and sometimes we may discuss the question with the patient of methods to promote a rapid disappearance of the lesions; or, on the other hand, a method of treatment looking to a permanent cure. The first may give quick relief to the objective features; the second may give an enduring result. If the patient fully understands the degree of his affection and the objects of treatment on one plan or the other, he is very likely to select the one which will give the most enduring result, although it may be slow and cover many months in duration.

With the first object in view of clearing the skin as rapidly as possible, we may use the well-known application of chrysarobin in proper strength, or salicylic acid, or beta-naphthol, resorcin or the more recent empyroform, or we may go still further and make a trial of the X-rays. One of these methods is pretty sure to effect a decided improvement in the course of a few weeks, but we can not give the patient any assurance of more than a temporary effect.

The second method of treatment looking to a cure must be founded on not only the ordinary features of the disease as manifested in the individual, but on its permanent peculiarities. These peculiarities may appear under one or all of the lines of inquiry already briefly outlined. For instance, if we find a history in the previous generation of a similar eruptive disease, we may use such constitutional remedies as aurum or kali-iodide. On the other hand, if we find some marked peculiarities regarding the disease itself, such as aggravations in summer rather than in winter, we may think at once of such deep acting remedies as sulphur, or of the more superficial acting remedy, ammonium muriaticum. If we find the modalities characteristic of great intolerance of the lesions to local irritation, we may also think of arsenicum. This remedy also is indicated for the very marked periodicity either in the eruption or in the manifestations of other symptoms.

Then to illustrate the third line of information, if the eruption begins on the head primarily, we may think of phytolacca. In a general way, if we find evidences of defect in the glandular functions, we may think of remedies which have particular relation to these structures, such, for instance, as thyrodin.

If we have reason to believe that there is a specific taint, kali-iodide will probably prove helpful either used intermittently or continuously in small doses of one or two grains three times a day.

Lastly, a vegetable diet is often indicated in cases of this disease; not invariably, because occasionally the patient is found anemic, but the majority are well nourished. In short, we might say a vegetable diet, with abundance of fluids, is indicated by the majority of individuals afflicted with this disease

146 West Fifty-Seventh Street.

[Written for the MEDICAL BRIEF.]

The Undeveloped Uterus.

BY RALPH ST. J. PERRY, M. D., LL. D.,

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Observation and experience, during the past decade, have led me to believe that the undeveloped uterus is seen oftener than it used to be. This may be due to an actual increase in the number of cases, or to the fact that young women are to-day more willing to be treated for their genital ailments than were their mothers, aunts and older sisters. Whatever the actual cause, it is true that a condition which was rarely mentioned in the text-books of twenty years ago is quite commonly found amongst the young women and pubescent girls of to-day.

The term "undeveloped uterus," as used in this paper, applies in its broader sense to that organ which is markedly smaller than it should be, considering the age, general physical development and family history of the patient. If a uterus be less than two-thirds the normal size it is bordering on the undeveloped, and if it be half, or less than half, its normal size, it is most decidedly undeveloped. Both of these conditions call for more or less remedial treatment.

The existence of an undeveloped uterus can be suspected in all cases where women, otherwise matured, present flat breasts, or undeveloped mammary glands. That flat breasts are quite common is evidenced by the large sales of bust developers, bust forms, and similar devices and nostrums calculated to remedy or supply the deficiencies of Nature. From my own personal experience I would not hesitate in saying that every young woman suffering from undeveloped breasts has a more or less undeveloped uterus.

When a young woman who has lived an ordinary life, without overwork or undue exposure to inclement weather, and who is otherwise healthy, suffers from chronic dysmenorrhea, amenorrhea, or vicarious menstruation, it would be well to inspect her uterus. When a young married woman remains sterile after oft-repeated exposures to the germs of maternity it would be well to inspect her uterus, after having first examined into the testicular history and possibilities of the husband.

In making physical examinations of virgins the physician now has at command much smaller and more appropriate instruments than were in use some years back. It is possible now to get speculums of sufficient smallness to enter any virgin vagina without rupturing or seriously injuring the hymen. Unless the physician has a small finger he should not undertake digital vaginal examinations, but should make digital examination through the rectum. The smallest size of Grave's speculum on general sale at the instrument-makers' is much smaller than the average forefinger, and with this the virgin vagina can easily be entered and dilated, sufficiently exposing for examination the uterus. With a small-sized sound the uterine depth and cervical dimensions can be measured. A general anesthetic may be administered, or not, as needed or desired. Local anesthesia may be needed in cases of vaginismus, atresia, and interfering or intractable hymen.

The prognosis in ninety-nine per cent of these cases is good. I would not hesitate to promise a satisfactory outcome in any ordinary case where treatment was begun during puberty, or early adult life, and persisted in faithfully for a sufficient length of time.

The treatment is remedial and prophylactic. One of the best remedial measures is vibratory massage, applied directly to the organ by means of cup-shaped applicators, or by the intra-uterine stem applicator. At the outset of the treatments this massage can be applied by rapid manual vibrations at the rate of from two hundred to three hundred per minute; later on, as the organ and the patient become more tolerant of the treatments, the vibrations can be applied by means of the electric or compressed air apparatus at a rate of from two thousand to seven thousand per minute. These direct vibrations should be given for only a

minute or two at a seance, and not oftener than once or twice weekly. Where the physician has no electric or compressed air vibratory apparatus the manual vibrations may be repeated several times weekly.

Supplemental and adjuvant to the vibratory massage there can be used certain of the Thure-Brandt movements. With the left index finger in the rectum, or vagina, firmly fixing the uterus, practice gentle circle-rubbings with the fingers of the right hand upon the abdominal wall over the uterus, starting with small circles and gradually enlarging them until they include within their field the ovaries and bladder. This form of massage may be continued for fifteen or thirty minutes, with intervals of repose. Follow this abdominal massage by a gentle, brisk and firm hand tapping over the roots of the sacral and lower lumbar nerves, or by electric vibratory massage over the same region. Also have the patient practice thigh rolling while in a half-lying position. Finish the massage by using the gentle, soothing stroking with the finger tips over the parts operated upon. This resembles the so-called "magnetic touch," and its effect is doubtless as much psychic as physical, but none the less effectual.

Some cases which resist the vibratory massage will respond to pneumatic massage, applied by the alternating vacuum machine used in massaging the ear and eye; using, of course, special forms of cups to fit the cervix uteri. Pneumatic massage can be applied daily, or every other day, in five-minute seances. Some beneficial effect is also secured through reflex action by massage of the breast, using the circle rubbings around the nipple and gradually enlarging the circle to include the entire breast area. Titillation of the nipple and the application of the breast pump, cupping glass, or vacuum developers will be of benefit in some cases.

In the line of medication there is not much to say. None of the women who have served as provers for our extensive *materia medica* have ever reported atrophy of the uterus, nor has any case of accidental poisoning or involuntary proving ever been followed by an atrophy of the uterus, so far as known. In the absence of more definite remedies the physician can test those commonly used in amenorrhea. More satisfactory results can be secured from those drugs known to possess a direct physiological action upon the involved organs, and of these my best results have been attained through saw palmetto. For ten years past I have been using saw palmetto, and have had no cause for complaint.

In addition to the measures here laid down, the patient must also adopt others, dependent entirely upon herself and her parents for their successful issue. As these same measures are, to a great extent, preventive against undevelopment of the uterus, they are here discussed as the prophylactic treatment. The prophylaxis of undeveloped uterus is a topic upon which a book could well be written, involving as it does matters of heredity, clothing, food, sleep, constipation, outdoor and indoor exercises, over-study at school, and many kindred topics bearing upon the development of the child, girl and woman. Lest this paper be prolonged to the brain-fagging limit let me summarize these points.

All clothing worn during the pubescent years should be suspended from the shoulders, and so arranged that there is no pressure or dragging down upon the pelvic organs, or abdominal muscles, or viscera. The food should be plain, simple and, to a certain extent, coarse. The finely ground or bolted breakfast foods, predigested foods, and other frauds upon the alimental canal should be eschewed as tending to induce gastric disturbances, establish constipation, and elevate gehenna generally in the internal economy. The patient should have at least eight hours sleep, and in many cases ten hours would be beneficial. Where constipation has already been established it should be eliminated, and one of the best eliminants for this work that I have ever used is the following powder:

℞ Sacch. Alba, Powd.....18 ounces.
Senna Fol., Powd.....5 ounces.
Licorice Root, Powd.....5 ounces.
Sulphur, Powd.....2½ ounces.
M.

One teaspoonful of this mixture at bedtime, when needed, will produce one or two evacuations the next morning, and does not tend to create a drug habit. As a general rule, the combined effects of the

massage and coarse food diet will remove the constipation without special laxative medication. The patient should have plenty of out-door exercise, boating, horseback riding, swimming, lawn tennis, croquet, golf, skating, moderate dancing, etc. Indoor games, such as hand ball, basket ball, medicine ball, etc., should be encouraged. If convenient, have the patient use an elastic exerciser, going through the leg exercises for a quarter or half hour daily. The "setting up" exercises of the United States army are highly beneficial and easily carried out. In all calisthenics, gymnastic and athletics use discretion, and do not allow the patient to overdo. A growing girl suffering from an undeveloped uterus should not be allowed to attend public schools, or other educational institutions, where she must keep up to a standard set by others. Such forcing has ruined too many lives, and it is time for parents, teachers, and the public generally to understand it. Place the victim of retarded uterine development under private tuition, where her individual capacity can be accommodated.

The physician should understand, and so caution his patient and her parents, that the undeveloped uterus is a condition requiring long, tedious, and persistent treatment; that it is impossible to make up years of retarded growth in a few weeks, and if they desire a satisfactory outcome they must be content and willing to let Nature work out her course, while the physician aids, abets and stimulates her.

[Written for the MEDICAL BRIEF.]

Etiology, Lesions and Symptoms of Scarlet Fever.

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Scarlet fever is a contagious punctate eruptive disease, accompanied by sore throat, a rise in temperature, preceded by a short stage of invasion, and followed by desquamation. The disease belongs to the group of pertussis, where a specific germ has not been discovered. Reasoning from analogy it is supposed to be due to a specific micro-organism, in connection with other micro-organisms that are found in the throat—streptococci. Some observers have gone so far as to state that it is the streptococcus that is accountable for the symptoms of this disease. Suffice it to say we have streptococci, producing infection, and there are pneumo-cocci present in the throat. We may class as predisposing factors anything which will lower the vitality and make for receptivity of the disease.

Scarlet fever occurs for the most part in children from two to five years of age. Before that age they are less susceptible, and not more than fifty per cent of those who are exposed to the disease contract it. Beyond the age of five the susceptibility is less, but the disease may occur at any age throughout life. It occurs most frequently in the fall and winter months, and is more severe during that season; just why, no one seems to know, but it is certain that the chronic conditions resulting are more liable to occur during the winter season. Children under two years of age, and particularly under one, are least susceptible to this disease.

The period of incubation is short, from two to six days; therefore, if a child has been exposed to infection, and has been kept at home from school for a week or so, and shows no symptoms of scarlet fever, it is quite evident that the disease will not appear. In many instances the period of incubation has been even shorter than two days, but the average is from two to six. As to the mode of invasion, it is for the most part contracted by being exposed to the patient. The poison may be in the breath of the patient and is certain to be conveyed by means of the secretions from the nose and throat, and from suppurative conditions, such as chronic otitis. The scales during the stage of desquamation contain this poison, as does the perspiration. The disease is infectious throughout its entire period, and it is probable that the urine and feces also contain the elements of infection. The disease is particularly infectious during the sequelæ, whether these take the form of chronic catarrhal pharyngitis, or a severe suppurating ear, which may continue to discharge for weeks after the patient

has ceased to present any other symptoms. The toys, books, and other articles that have been in the sick room, should be destroyed. I know of no other disease, barring tuberculosis, which is so easily carried in objects of this sort. Bouquets of flowers have been sent from a sick room to the hospital and scarlet fever has been the result. Curtains, upholsteries, anything used in the sick room, may be a carrier of the infection. Milk, which is one of the most easily contaminated of all our foods, has been known to carry the disease. In New York City the records of J. L. Smith show a number of cases of scarlet fever which were traced to milk infection (at the home of the dairyman). It is rare that the disease is carried by a third person, although there are instances on record where a physician has carried the disease from a patient direct to his home. And it is just as possible for a nurse to carry the disease as for the physician.

The duration of the period of infection is about six weeks, but this time may be extended by reason of the sequelæ, such as the suppurating ear, the chronic pharyngitis, rhinitis, etc. The lesions that we find in this disease are confined to the skin and mucous membrane of the nose and throat. There is at first a general hyperemia of the skin, followed by infiltration of the serum and round cells into the chorium and particularly about the blood vessels and hair follicles. Lesions pertaining to the mucous membranes vary greatly in degree, from a mild catarrhal inflammation, membranous inflammation —this latter rarely in the larynx—and gangrenous inflammation. The esophagus is usually highly congested. Lesions other than these occur elsewhere, such as fatty degeneration of the heart, focal necrosis of the liver, congestion of the malpighian bodies of the spleen, etc. We may have an endocarditis, a pericarditis, or inflammation of the tongue. There may be pleurisy, acute congestion of the kidney, or a diffuse nephritis. We may also find empyema.

When there is a severe form of inflammation in the mucous membranes of the nose it may extend to the antrum, or through the eustachian tubes, causing inflammation of the middle ear, thence to the meninges, mastoid cells, and to the brain. We have always more or less inflammation about the pharynx in the sequelæ; the most common is, perhaps, otitis. This latter ranks as the most frequent of all causes of the deaf and dumb cases which fill the institutions of the present day.

Symptoms.—The stage of invasion is short, from twelve to twenty-four hours; the child is taken sick with vomiting and sore throat, and in twenty-four hours the first stage is complete. The stage of eruption is short, the rash making its appearance first upon the neck, then upon the chest, and in twenty-four hours it has spread to the entire surface of the body. During this stage the temperature rises in mild cases from 101° to 103° F., and runs, on an average, from three to seven days. When the temperature falls we have the period of desquamation. This stage is ushered in by a fuzzy appearance of the skin at the point where the eruption first made its appearance, and if the body is not bathed and cared for the scales will be quite prominent after several days. If let alone the desquamation is at its height at the eighth day of the disease, and then begins to fade. This stage, however, lasts about three to four weeks. Where the skin is thickest it is last in peeling off, but is most prominent at these points. We have all grades of peeling, from the little, narrow strips to the entire cast of the fingers. The exfoliation during this stage is governed by the severity of the dermatitis. In mild cases there will be little desquamation; in severe cases the desquamation will be prolonged and deep.

Holt differentiates between the mild, moderately severe, severe and malignant cases of scarlet fever. In the mild case the disease is ushered in after a short stage of incubation—and the shorter the stage of incubation the more intense will be the course of the disease—vomiting will be projectile in character and often not accompanied by nausea. The child, whether it has taken any food or drink, will be seized with an attack of vomiting. This is continued for one or two hours. With this is a slight soreness of the throat. There is congestion and redness of the membrane of the throat, fauces, and tongue. The tongue is coated, the

temperature is, perhaps, 101° F. In twenty-four hours the eruption appears, and after two or three days, never later than the fifth day, the temperature has fallen to normal and desquamation commences. If the dermatitis has been mild the child will want to get up and play, and the physician who will permit this is guilty of a sin of omission in not recognizing the fact that this child can at this time transmit to another malignant scarlet fever. The rule is that if proper attention is given such a case the temperature will run along for two or three weeks until recovery, without any severe complications. The moderate form of scarlet fever is the one we usually see in epidemics. It differs from the mild form in presenting a higher temperature (103° to 104° F.); there are patches of white or yellowish white upon the tonsils, which, unlike the tenacious membrane of diphtheria, can be rubbed off. There is more difficulty in swallowing, and the symptoms of angina are more intense. There is a tendency toward swelling of the glands at the angle of the jaw. The pulse is more rapid, running from one hundred and twenty to one hundred and sixty. Eruption is more intense, of a brighter scarlet, and more liable to appear upon the face than in the milder form. There is the characteristic white appearance about the lips, the other parts of the face are intensely red, which accentuates the pallor around the mouth. At the second or third day there may be a low, muttering delirium. Later, there may be a discharge from the ear. The temperature gradually falls until the tenth day, when desquamation begins. A most important feature of the moderately severe form is the tendency to complications. One of the most common conditions (according to Pearce, of Albany) is the hyperplasia of the lymph nodes throughout the entire body, and swelling of the glandular and cellular tissue about the neck. During the febrile stage there may be septic symptoms. Unless the complications are unusually severe these cases recover. The desquamative stage is more prolonged, the urine usually shows epithelial casts, etc. Suppression of urine is one of the most ominous symptoms in this disease.

The severe form is ushered in in the same way, but the vomiting is more intense, and the temperature will reach 105° F., or possibly 106° F. This class of cases frequently have convulsions, instead of vomiting. There will be membranous inflammation of the throat. Usually, after the fifth day to the eighth, the temperature subsides. At the beginning of the second week there is usually a complication, oftenest middle-ear disease. If these cases become septic in character, due to the action of the streptococci, by the fourth or fifth day, the temperature is higher, and they become comatose and die within two weeks from a complication, such as broncho-pneumonia, pneumonia, or from heart failure. If the eruption is very marked in the beginning, there will be high arterial tension; when the eruption begins to fade, low arterial tension.

The malignant variety, which is rarely seen, is one in which the patient is overwhelmed by scarlatinal toxemia, and becomes comatose almost from the start.

The Chalfant.

[Written for the MEDICAL BRIEF.]

A Few Points on Circumcision—Technique of Operation.

BY O. L. SUGGETT, M. D.,

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[Second Paper.]

The operation is the simplest imaginable and, if properly done, occasions the patient little discomfort or inconvenience.

The instruments required for this little procedure are few and simple; a soft, rubber catheter, a hypodermic syringe, a half ounce of a four per cent solution of cocaine, an indelible pencil, a phimosis clamp, a pair of strong, sharp scissors (six inch, curved on the flat, one blade pointed, the other blunt), three pairs of four-inch artery forceps, one small curved needle, needle forceps, and about eighteen inches of twisted silk, No. 8.

Needless to say that the same amount of care and surgical cleanliness is required in this minor procedure as in a major operation. This requires shaving of the surrounding parts, and a thorough cleansing with soap and hot water, followed by the liberal use of a 1-4000 bichlorid solution. A thin film of cotton, saturated with a five per cent solution of cocaine, is placed around the glans, and the foreskin drawn carefully over it. The line of incision is then drawn with an indelible pencil (the point of which has been moistened with a bichloride solution) entirely around the glans, just back of the corona. This marking must be done when the penis is flaccid and in a normal position. This is important, as the skin here is deceivingly loose and the novice is likely to draw too much of the skin through the clamp without these markings to guide. Having outlined the incision as above described, it extends farther back upon the dorsum than it does upon the under surface, where the lines from either side unite at a point nearly one-quarter of an inch below the attachment of the frenum to the cleft in the glans penis. A catheter is then tied firmly around the root of the penis, tourniquet fashion, protecting the urethra below by intervening a piece of cotton, and placing the knot on the dorsum. Before tightening the tourniquet, the prepuce is drawn strongly forward, so that the dotted line is well beyond the extremity of the glans. Removing the cocaine-saturated cotton surrounding the glans, the forefinger is inserted through the preputial orifice to serve as a guide, and to help direct the hypodermic needle between the skin and the quasi-mucous membrane, which, if successfully done, will enable you to sweep the needle about on all sides and distribute your cocaine sufficiently through one puncture, otherwise it will be necessary to inject it at several points. One syringeful, or two at the most, of a four per cent solution will be sufficient. Withdrawing the needle and gently rolling the tissues between finger and thumb hastens its absorption and anesthesia, which requires four or five minutes. Care must be taken, however, not to blur the pencil marking.

With an artery forceps the prepuce is seized in a line with the frenum below, and with another pair at a point immediately above on the dorsum, and pulled evenly and firmly forward. The clamp is adjusted, noticing that the pencilled line is entirely visible through the fenestrum in the clamp. This may be best done by partially locking the clamp and rolling the skin beneath its blades until in the desired position, then locking the clamp tightly. While the assistant exerts moderate traction upon the artery forceps, the left hand is used to steady the phimosis forceps. In this manner and with one sweeping stroke of the scissors, or a very sharp scalpel, the foreskin is cut through, immediately along the upper edge of the blades.

On removal of the clamp it will be seen that the glans is still covered with the quasi-mucous membrane in a cuff-like fashion, its inner surface being exposed to view. If the semi-mucous membrane is very stretchy (and there is great difference in the elasticity of different foreskins), and the glans is "flatheaded" (not peaked or cone-shaped) and small, I apply the artery forceps as before, placing one half way between these two, which will include in its grasp the mucous membrane of both sides, and drawing it strongly forward, apply the clamp, and with its blades gently closed, but not locked, force the glans back as far as possible before locking the blades, cutting along the top of the clamp as before, which produces a perfectly smooth and even edge upon the semi-mucous membrane, the surfaces coming into perfect apposition. This will, of course, make the mucous membrane a trifle longer than by splitting it down the dorsum and trimming it around with scissors in the usual way, and necessarily brings the scar farther back of the sulcus; but by the latter method, on account of the delicacy and pliability of the membrane, as well as its close adherence to the underlying tissue, it is well nigh impossible to trim it around as evenly as by the former method, when the traction upon it is equal all along the line of incision, and the latter is made at one stroke.

The mucous membrane is now turned back smoothly in its proper position, and

the skin drawn forward and, when perfect apposition is assured, we remove the catheter, which has served the double purpose of controlling the hemorrhage and confining the cocaine to the field of operation (an important point).

Usually the bleeding will be but slight, but in some cases it may be considerable, in "bleeders," most annoying. The bleeding points may be picked up, the artery of the frenum usually being the most important, though seldom requiring a ligature. The oozing is easily controlled by gauze wrung out of very hot water and held tightly around the entire penis. Too much time should not be lost in controlling the hemorrhage, as the cocaine rather quickly loses its effect after the removal of the hemostat, and the patient will object to the stitching. After the bleeding has been entirely checked the first stitch is taken at the frænum, and, using a continuous suture, the cut surfaces are "whip-stitched" (inserting the needle through the outer surface of the skin and the under surface of the quasi mucous membrane) all the way around, the last stitch being tied to the first.

Care must be exercised in bringing the cut surfaces into exact juxtaposition, else a redundancy will exist upon the side where you finish. Before tying the last stitch at the starting point, all the "slack" should be taken up with a small blunt hook, beginning at the starting point and tightening up each stitch in turn. Do not, however, draw the sutures too tight or it will strangulate the parts. When it occurs conveniently, a stitch taken through a bleeding vessel will check the hemorrhage from that source. Before applying ung. dressing I am in the habit of surrounding the entire penis with gauze wrung out of very hot water and compressing it firmly and evenly from all sides for at least five minutes. This checks any remaining oozing and reduces the tendency to subsequent hematoma and edema. A plain gauze bandage, one inch in width, is applied evenly, which, in the absence of any swelling, is not removed until the fifth day, at which time the sutures are removed and the parts redressed. If everything has been sterile and thoroughly aseptic, especially your sutures, this dressing may be left undisturbed until union is complete, which is generally in ten days. Executed in the manner just outlined this little operation is absolutely painless, and does not cause your patient to lose one hour from his work. Putting them to bed, as advised by some authors, is absurd. The glans, which is naturally sensitive after removal of the foreskin, may be protected for a few days with a silk or soft linen handkerchief.

Commercial Building.

[Written for the MEDICAL BRIEF.]

Hip Joint Disease.

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Hip joint disease, or more properly speaking, tuberculous disease of the hip joint, has probably occupied the most prominent place in joint diseases of the body. The size and importance of the hip as a joint has made it of especial interest to the medical profession, and the fact that a perfect cure has baffled and continues to baffle the best men in the profession to-day is sufficient proof that there is still room for improvement in the treatment of hip joint disease.

Hip joint disease is a chronic destructive tuberculous disease of the hip joint that results in loss of function and deformity. The principal etiological factors are, first, the predisposition of the patient; second, the tubercle bacillus, and, third, the local condition favoring the reception and growth of the bacilli.

The predisposition of the patient is a lessened vital resistance that may be hereditary, or due to improper food and hygienic surroundings, or exhausting and depressing diseases, especially whooping cough and measles, or any condition that will undermine and exhaust the health of the individual.

The second elément is the tubercle bacillus which may find its way into the system through any part of the respiratory tract, or alimentary canal. Latent tuberculosis of the bronchial, cervical or mesenteric glands may persist and free bacilli or particles of infected tissue may

from time to time escape into the blood current and be carried to other parts of the body.

Third, local conditions favoring the reception and growth of the bacilli. This may be caused by an injury, usually slight, causing a hemorrhage into the cancellous tissue; this produces a local congestion and provides material for the development and growth of the bacilli that may be carried to that part by the blood current. Injury as a direct predisposing cause has been proven experimentally and is supported by clinical evidence in about twenty-five per cent of cases, but exact relation can only be conjectured. The disease usually begins in newly-formed bone around the epiphyseal cartilage. The circulation here is more active, is subject to greater strain, is more liable to injury, and also accounts for the relative frequency of the disease in childhood, as compared with adults.

Pathology.—The disease usually begins in several minute foci in the head of the femur, near the epiphyseal cartilage, but may begin in the acetabulum or synovial membrane. After the bacilli are deposited the irritation of their toxins causes a proliferation of the fixed cells which lie in direct contact with the germs, and around these a ring of leucocytes form; this forms a little grayish speck in the cancellous tissue. The central cells about the bacilli, increasing in number, deprived of nourishment and poisoned by toxins, die and are disintegrated to granular material and the tubercle changes to a yellow color. The multiplying bacilli escaping form new tubercles about the original foci and coalesce as the area of the disease enlarges. Meanwhile the surrounding tissue becomes congested as a result of the irritation and the fixed cells become organized, or partly so, into a feeble, ill-nourished form of granulation tissue, representing the effort of the part to shut out and expel the foreign substance formed by the disease. If this is effective the germs are surrounded and destroyed and are transformed into scar tissue. In most cases the bacilli destroy the granulation tissue and the area of the disease is extended.

If the progress of the disease is slow the cancellous tissue is represented by bone sand, but if rapid a sequestrum of bone may be formed. By the formation and coalescence of new tubercles a cavity is formed containing the debris of granulation tissue, bone sand or sequestra of bone, fluid composed of leucocytes and serum that have exuded from the surrounding tissue masses of degenerated tissue and usually of a whitish color, though sometimes red from admixture of blood and in later stages turning to a thin, yellow-colored fluid. The abscess enlarges in the direction of least resistance and may open on the neck or shaft of femur, but usually enters the joint. The tissues in the joint are involved in a sympathetic irritation and inflammation, while the disease itself is still in the bone. The synovial membrane is congested and hypertrophied synovial fluid increased, fibrin forms on cartilage and lining membrane of capsule and adhesions form. Repair may take place at any time by absorption, ejection or enclosure of the disease. When the progress of the disease ceases the granulations become more healthy, blood vessels are formed, the parts become more perfectly organized, are of a firmer consistency, and the bone becomes harder, showing evidences of repair. If enclosure of the disease occurs traumatism may cause it to break out anew.

Hip disease ranks second of all tuberculous affections of joints, Pott's disease being first. It is essentially a disease of early childhood, although no age is exempt. From eighty-five to ninety per cent of cases are under fifteen years of age, and half of these are from three to five years. Males are more frequently affected than females, and the right side more than left. Probably because boys are more active than girls and more liable to injury because of their outdoor games, and the majority of them being right-handed the right side is used more than the left.

Symptoms.—The reason the symptoms of hip-joint disease exist for some time before the patient is brought to the physician for treatment is because their development is so slow that the parents are not aware of the severity of the disease and some time elapses before they realize the child needs treatment. The symptoms

that usually first attract attention are pain and limp.

The characteristic pain of hip disease is located on the inner side of the knee, and is the terminal filaments of the obturator nerve on the inner side of the knee, giving expression to the irritation of other filaments of the same nerve which supplies the hip joint. Direct local pain and sensitiveness at the hip are unusual unless the disease is acute or the overlying tissues are involved, as in the formation of an abscess. Sudden and unguarded movement and injury aggravates the pain. It is worse at night because the joint becomes more sensitive from use during the day and muscular relaxation at night permits the sensitive parts to come into contact and the child cries out with pain and may be found holding the thigh with the hands or pressing the limb with the other foot. This condition is generally worse the early part of the night.

The limp attracts a great deal of attention and causes a change of rhythm in the gait; a long step alternating with a short step, and is considered to be due more to the sensitive joint than to any marked restriction of function. Hip, knee and ankle are flexed so as to prevent any unnecessary jarring, and is more noticeable in the morning.

Examination of joint will show reflex muscular spasm, which is the barometer of all sensitive joints. It precedes all symptoms and remains until the cure is complete. Motion is limited to a greater or less degree in every direction in proportion to the sensitiveness of the joint and, unless adhesions have formed, will disappear under an anesthetic. Slight flexion of the limb is the earliest indication of any deformity and with this is usually abduction and outward rotation. The limb seems longer than its fellow, due to a tilting downward of the pelvis on diseased side and the elevation of the opposite side and is often referred to as the stage of apparent lengthening. The next change is one of flexion, adduction and inward rotation, with actual or apparent shortening. Contractions, adhesions and changes in the muscles and fascia may persist after a cure is complete. In the first condition the buttock appears flatter and broader than its fellow. The gluteo-femoral fold is lower and shallower because of tilting the pelvis and flexion, and the inguino-femoral fold is deepened and lengthened.

Atrophy is an important sign, is demonstrated by measurement and if well marked shows that the disease has existed for some time. Its cause has been the subject of much discussion. Vulpian and Charcot claimed it was nervous and reflex, due to changes in the trophic centers of the spinal cord. Saborin claims it is a molecular neuritis. Physiological disuse and diminished nutrition also contribute their share. The opposite limb is relatively hypertrophied, because of increased work. Actual shortening of afflicted limb is a common effect in later stages and may be due to disuse of limb, effect of disease upon the epiphyseal cartilage, erosions of head of femur, or acetabulum, causing displacements or depression of neck of femur; actual lengthening seldom occurs, but is due to the stimulation of growth in the epiphyseal cartilage of head of femur. Retardation of growth is the usual condition. Debility, pallor, loss of flesh, appetite and strength, and slight elevation of temperature occur, but is more noticeable in later stages, or in infected abscesses.

A limited amount of fluid is present in nearly every case of hip-joint disease, but is not classed as an abscess unless large enough to be detected; this occurs in about half the cases. It usually appears between the sartorius and tensor vaginæ femoris muscles; it may perforate the acetabulum and enter the pelvis, or may present itself on the inner or back part of the thigh, its situation being influenced by the point of rupture of the capsule, after which it follows the course of least resistance. If found early in the course of the disease it indicates the rapid course of the disease, the joint usually being involved, and perfect function less likely to be preserved.

In making an examination for hip disease observe general condition of patient; note different attitudes and character of limp. Remove all clothing, place patient on back upon table, legs parallel and extended; notice length, size and position of each, manipulate sound limb first, test-

ing flexion, extension, abduction and adduction; compare diseased limb with it. Place patient face downward and test extension for psoas contraction, and if motion is unrestricted in all directions you can exclude hip disease.

Measure from anterior superior spine of ilium to the extremities of the inner malleoli, limbs parallel, to determine actual length of limb. Measure from umbilicus to inner malleoli to determine apparent lengthening or shortening, if limb is distorted. Determine atrophy by measuring corresponding points on each limb, being careful that an abscess is not present at point of measurement. Firm and deep pressure over joint usually causes discomfort and a peculiar resistance of deeper parts, caused by infiltration, is often present.

In making a differential diagnosis remember that hip disease is a chronic tuberculous disease; symptoms may have existed weeks, months and years before brought for treatment; is a disease of a single joint, does not get well, causes a limp accompanied by reflex muscular spasm, deformity and general atrophy of the muscles of the limb. Is usually a history of a fall, but faulty use of a limb due to a diseased joint will cause more falls than falls cause joint disease. X-ray examinations are of more value in demonstrating deformity than in establishing an early diagnosis of the disease, especially in childhood, when a large part of the upper extremity of the femur is cartilaginous.

Treatment.—In treatment we must not only bear in mind the local manifestation of the disease, but the general condition of the patient as well. As this disease is more common among the poor of our large cities than the favored class, we must improve as much as possible the hygienic and dietetic conditions and surroundings of the patient. It is almost impossible, in a great many cases, to make the desired changes in this direction, but insist upon good food, and use appliances that will permit of open air exercises. After this we must depend upon medicinal and mechanical treatment.

The object of the mechanical treatment is perfect rest and extension, so as to secure protection, to prevent friction, to relieve pain and muscular spasm, and to correct and prevent deformity. To accomplish this numerous methods have been devised, as, for instance, the traction hip splint, or American method; the Thomas brace, or English method; the plaster of paris, or German method; the weight and pulley for the bed, and the Bradford frame. Each of these has its ardent advocates, and there are cases in which a certain one of these methods is better than any other method that can be employed for that particular case; but the brace as devised by Dr. A. M. Phelps, of New York, comes nearer combining the good qualities of all than any other method. This provides a combination of lateral and longitudinal traction with splinting and stilting. A steel bar extends from the axilla to below the sole of the foot and then turns inward; two metallic bands encircle the trunk. A metallic ring fits the upper extremity of the thigh closely, and is attached to the steel bar at an inclination corresponding to the line of the groin. Three bands encircle the limb, one at the upper part of the thigh, giving lateral traction against the bar, the other two at the knee and calf. Adhesive straps, with buckles at the lower end, are placed on the limb and secured by a bandage, while straps fastened to lower end of the brace connect with the buckles, giving longitudinal traction. The brace is made adjustable at the hip, so that traction is made in the line of deformity and the brace gradually straightened as the deformity is overcome. A high sole is placed on the opposite shoe and the patient is permitted to go around with the aid of a crutch. A high chair with half the seat removed permits the patient to sit down.

The treatment of an abscess depends on circumstances. If it remains quiescent and causes no disturbance, let it alone, as spontaneous absorption occurs in about twenty per cent of cases. If abscess enlarges, relieve tension by aspiration and apply a pad and bandage; repeat if necessary. If abscess is large and symptoms acute, evacuate by a free incision, remove necrotic material, wash out with pure carbolic acid, followed by alcohol and then a copious saline solution. If necessary, remove head of femur by the lateral or pos-

terior incision. Amputation follows excision of the hip when suppuration persists and patient does not improve, unless condition of patient will not permit.

Use of X-ray has given good results in some cases and very little or none in others.

Prognosis.—Promise nothing in less than from three to five years. Direct mortality of hip disease is due almost entirely to immediate or remote effects of abscess, about seventy-five per cent being due to this cause. Death rate varies from twelve per cent in non-operative cases to fifty per cent in operative cases. Mild cases, with early diagnosis and proper treatment, recover in from one to two years; moderate cases, two to three years; severe cases, five years. Use support long after disease has remained quiescent and is apparently cured.

902 Scott St.

[Written for the MEDICAL BRIEF.]

Etiology and Treatment of Some of the More Common Diseases of the Upper Air Passages.

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In the treatment of the upper air passages, we meet with a class of cases in which the local lesions do not furnish the evidence of the real pathological factor. To find this, experience has taught us that we must look beyond the local spot to explain the etiology often remote from the lesion concerned and adopt measures further reaching to effect a cure. We have learned that local measures alone no more effect a cure in a certain class of toxic cases than does morphine cure suppurative appendicitis; but simply acts as an analgesic and masks the symptoms for the time being. When we study the anatomical construction and the physiological functions, the intimate and delicate relations of the mucous membranes of the upper air tracts to the vital centers, as the liver, heart, kidneys and digestive tract, we do not wonder at their altered condition and appearance during the impairment of the action of these organs.

When we analyze the various departures from the normal in the air passages and study them from a broad or general medicine standpoint, excluding congenital or acquired deformities that act as mechanical irritants and obstructions, we find that a great number or group of cases have some systemic factor playing a prominent part in their etiology. All diseases of the upper air passages must have a beginning, and it is to the early incipient stage that this paper is directed, and not to the advanced lesions, as the hypertrophic and traumatic disturbances, many of which require surgical measures before any relief of consequence can be promised.

I wish to emphasize that it is not the cases above referred to, but the congested hyperemic conditions that produce pressure, irritation, headaches, and the train of symptoms that come with auto-intoxication through absorption from the intestinal tract; faulty metabolism in the liver and elimination by the kidneys. We are all more or less familiar with the congestion and glandular activity that is observed in the mucous membranes of the upper air passages in diseases of the gastro-intestinal tract, the heart, kidneys and liver.

The conditions that are most usually found in the nose and throat are those known as lithemia and auto-toxic infections. Lithemia may be defined as an irritable, congested, or inflammatory process, brought about by over-production and retention of acid urates that should be eliminated. Any excess may be carried to the secreting and eliminating structures and there retained, causing irritation. Their combination on the mucous membrane with other extraneous materials may form new chemical compounds that act as violent irritants to the sensitive mucosa, manifesting itself in what we designate as coryza, taking cold, or an attack of hay fever, rose cold, ragweed fever, or any of the different names applied to the various external influences at different seasons. The great vascularity of the mucous membranes of the upper air tracts make them peculiarly susceptible to the uric acid and other toxic influences.

The position and the action of the muscles of the pharynx in the act of swallowing make them more sensitive than other parts. When we consider the intimate relationship of the pharynx to the digestive tract, being a part of it, we can readily understand how it can be, and is, influenced by faulty metabolism in the liver, resulting in the condition known as lithemia, as well as auto-intoxication caused by fermentation and the absorption of by-products from the intestinal tract. In either case the pharynx may, on account of its exposed position, be the first place to show manifestations of their presence. These congested or inflammatory processes may not be confined to the pharynx, but may conjointly or separately involve the larynx and the nose.

Professor A. Haig, of London, by a series of investigations, has shown, first, the amount of uric acid found in the body bears a direct relationship to the amount of proteid food consumed. Second, under normal conditions of the fluids of the body, uric acid is conveyed to the kidneys and there eliminated. Third, under conditions of diminished alkalinity of the blood, uric acid is precipitated out of the blood into the tisues and joints that furnish the greatest attraction, viz., the liver, spleen, cartilages of the joints and fibrous tissues. Fourth, uric acid is constantly fluctuating, according to the increased or diminished alkalescence of the blood. Fifth, the precipitation of uric acid and urates into the fibrous structures of the joints constitutes true gout, and when deposited in the sheaths of the muscles it produces rheumatism.

When elimination by the mucous membranes, catarrhal inflammations may supervene, resulting in gall stones, rhinoliths and tonsilloliths. Sixth, when an excess of uric acid is circulating in the blood the nervous system is profoundly influenced by its presence, as manifested by mental depression, despondency, melancholia, irritability of temper and a small, hard pulse, with increased arterial tension—a condition so often found in the catarrhal subject.

The small, hard pulse, with increased arterial tension is due to contraction of the capillaries and arterioles, induced by stimulation of the vaso-motor centers in the medulla. The physiology of the sympathetic with its vaso-motor fibers gives us a key to the explanation of Professor Haig's deduction from an abnormal amount of uric acid circulating in the blood. Uric acid is an irritant to the nerve centers, but all people are not alike susceptible to its irritating influence, and herein lies the explanation that lithemia may be apparently harmless to one and a powerful irritant to another. Uric acid usually manifests itself in one of three ways, (1) a deposition in the cartilaginous and fibrous tissue, producing gout and rheumatism. (2) Deposition and retention in the pockets of mucous tracts resulting in gravel, cystitis and tonsilloliths, rhinoliths, etc. (3) By innervation or indirect action while circulating in the blood, causing functional neuroses. There is no doubt that lithemia plays a large part in the development of functional neuroses which applies to the mucous membranes as well as other tissues of the body. When there is an excess of uric acid in the blood, pathological results will follow in direct proportion to the resisting power of the nervous system. Our American people, on account of their manner of living and business methods, are doubly exposed to the invasion of toxic and lithemic troubles. The great danger of our country becoming one of lithemic neurotics was pointed out by J. M. Fothergill years ago. We have only to look to our asylums and great army of catarrhal dyspeptics for proof of his saying.

Dr. Morris H. Henry, of New York, has recently made the statement: "There can be no doubt that the errors in diet and the tendency to over-eating in this country is leading to the development of lithemia in a large class of our population." My observation leads me to believe that a great class of our people consume too much nitrogenous food and do not take water and exercise sufficient to wash away the products of tissue changes. When the liver is overtaxed, the result is uric acid formation. This leads to vascular changes, as before stated, that may express itself in Bright's disease and many of the forms of irritation that are found in mucous membranes, especially in the upper air tracts. Naso-pharyngeal inflammation, laryngitis, bronchitis and otitis in all

their forms are more or less influenced, if not entirely due, in many instances, to lithemia, auto-infection, or both.

Many of our best rhinologists recognize lithemia toxemia as a potent factor in the production of naso-pharyngeal catarrh. There is quite a revival in the investigation along the lines of the composition, the variations, and the chemistry of the fluids of the body. Also their influence as manifested by depletion and tension of the vessels and mucous surfaces through vaso-motor control. Hyperesthesia, migraine, and the various forms of neuralgia may be caused by pressure irritation. If lithemia will cause hyperemia and set up eczema upon the skin, why not in the nose?

We should not place too much stress upon the conditions and structural changes in the nose and throat; excluding all other factors as the cause of the disease, diseased turbinates may be a sequence or coincidence. Long continued disturbance of the vaso-motor supply of these parts may result in passive hyperemia which may, if continued, result in proliferation of cells in the tissues forming true hypertrophy that will serve as a nidus for irritating agents, as the faucial tonsil, for example.

The pain and discomfort of a lithemia throat can not always be accounted for by the systemic disturbance as indicated by the temperature and constitutional disturbance. One of the first and perhaps the most constant symptoms is congestion and swelling of the lymphoid tissues behind the posterior pillars of the fauces. In well-marked cases the uvula will appear congested and stiff, and in some cases edematous. Patients will complain of dryness and pain, extending to the ear, in attempting to swallow. A feeling of tightness, or constriction, and a pricking sensation is a common symptom that precedes an acute attack of migrane, articular or muscular rheumatism. The primary cause of many cases of vaso-motor coryza, pharyngitis, laryngitis and bronchitis is lithemia. These cases, as a rule, lead sedentary lives, are under-exercised and overfed. The underfed individual neither takes cold nor suffers from lithemia or rheumatism. The over-fed body is worse off than the under-fed, because it is doubly taxed to dispose of what can not be appropriated and when not properly disposed of remains to undergo fermentation and chemical changes that become elements of danger. Uric acid as found in the blood consists of sodium salts, either as a biurate or quadriurate, or in both forms. The latter are soluble in blood serum and will not precipitate in crystals, while the biurates are only slightly soluble and are readily precipitated in the form of crystals.

It is generally conceded that the uric acid diathesis is primarily due to diminished alkalinity of the blood. Therefore, the treatment must be directed toward the restoration and maintenance of the normal alkalinity.

It is not my purpose to speak at length on the treatment of lithemia further than to insist that a well-directed treatment along these lines will benefit or cure a large class that apply to us for relief from some annoying disturbance of the upper air passages, with more dispatch and certainty than by any other method. In the lithemic subject the local manifestations are the expression of a systemic disorder; local treatment does not amount to much except for its psychologic effect, and when used, should be mild in character and directed to cleansing only. Strong, stimulating and astringent applications are contra-indicated, as they only aggravate the symptoms. Mild antiseptic sprays or douches to remove the viscid secretion and hot mentholated or saline gargles are very grateful.

Our principal treatment must be directed to the cause, which we have determined is either retention and absorption of acid urates, or auto-intoxication caused by absorption of by-products from the intestinal tract. The remedies on which most reliance is placed in the treatment of these cases are, first, calomel and salines, to stimulate metabolism in the liver and clear out the alimentary tract, to be followed by the alkaline salts of sodium, potassium and lithium, colchicum, guaiacum and natural mineral waters. The object being to increase the alkalinity of the blood and stimulate oxidation, thereby retarding the formation of uric acid and the growth of pathogenic micro-organisms. Strict attention must be given to the diet.

The injunction to abstain from certain nitrogenous foods, wines, liquors and excessive smoking must be imperative. The copious use of water, both internally and externally, is of the greatest value. Baths should be taken regularly, followed with rubbing, to excite the functions of the skin. Exercise, especially in the plethoric, should be insisted upon. With these suggestions carried into effect, many of these cases will forestall surgical operations, and the physician will receive his reward in putting more sunshine and happiness into the lives of his patients.

224 North Meridian Street.

[Written for the MEDICAL BRIEF.]

The Use and Abuse of Calomel.

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I am convinced that calomel is more recklessly used than any other drug in our *materia medica.* An extensive acquaintance with the medical profession, especially in the Southern and Western States, has led to this conviction. That calomel is used recklessly, and in a manner altogether unwarranted by the true therapeutic scope of the agent, one has only to attend medical societies and converse with many practitioners to be convinced. Formerly—that is, when our forefathers were at the helm—calomel was employed in nearly all diseases. That this wrought great damage to their patients there can be no doubt. But it is true that calomel, in many sections of the country, is used almost as often as in the past generation.

I am sure that the mortality which attends upon many diseases is due to the lessening of the resisting powers by the debilitating effect of calomel. This fact has forced itself upon my conviction after extensive and critical observation.

Let me now take up the consideration of calomel from a purely therapeutic standpoint, and in this way make manifest what is considered the proper use as well as the abuse of calomel.

Calomel has been used locally with some degree of success. In a ten per cent ointment its application to indolent ulcers has been attended with good results. It is claimed by good observers that this ointment is valuable in eczema and other cutaneous diseases attended with pruritus. Calomel has also been applied in powder form to ulcers, chancres, etc., with success.

A full dose of calomel (five to fifteen grains) is followed usually in about eight hours by a copious action, which is mucous, brown or yellow or green. In children, the stools are almost invariably green. The peculiar color has long been thought to be due to the bile contained in the feces. This is, too, an attested fact. This fact has led many to the very incorrect conclusion that calomel increases the amount of bile by its special action on the liver. The fact is, as Curtis points out: "Biliary stools, following a calomel purge, result as a natural consequence of an assumed action of calomel in rushing down, as it were, the contents of the duodenum, so preventing that reabsorption of a considerable portion of the bile present in the intestinal contents which is claimed to be a normal occurrence." On this point Bartholow says: "The misconception of the action of mercurials on the liver as prevailed chiefly because of the peculiar evacuations produced by it. * * * The experiments of Rohrig, Rutherford and Scott on animals, and the observations of Westphalen and Ranke in cases of biliary fistulæ in man, have thrown a flood of light on the action of mercurials, and there seems to be no longer any reason to doubt the accuracy of the conclusions reached. It has been shown that calomel lessens the physiological activity of the liver, and consequently diminishes the production of bile. Instead of stimulating the liver or acting as a cholagogue, calomel must be regarded as a sedative, and as having the power to allay an irritable state of the liver. Oddly enough, this fact harmonizes in the most satisfactory way with clinical experience, for calomel has always been regarded as useful in the highest degree in those cases of biliousness characterized by a surplusage of bile, due to an overacting liver. Under such circumstances an active cholagogue,

stimulating the productive capacity of the organ, would only increase the existing complications." Calomel may be said to be the proper remedy for biliousness, but the foregoing proves how very erroneous is the belief so generally entertained that it stimulates bile-production. The statement is often heard "he needs some calomel to make his liver act." This belief is responsible for much physical woe. The number of cases of pytalism that can be traced to efforts to "get the liver to act" are very numerous, and the debility which these efforts have emphasized, has, it is reasonable to believe, proved the sufficient burden to sink the hard-pressed life vessel. It has been pointed out by several able therapeutists that calomel, even in small doses, often produces salivation. There is a degree of uncertainty following this action of the drug that renders it by no means a safe agent.

To relieve vomiting, calomel is useful in many instances. In doses of one twelfth of a grain it has been very efficacious in allaying the nausea and vomiting of malarial fevers. In persistent nausea and emesis in other diseases it has often acted promptly and satisfactorily.

As anthelmintic, either alone or in combination with santonin, calomel has some reputation. Chapman and other extensive observers, however, have not thought the action of this agent superior, or that it was constantly reliable for this purpose. My own observations have led me to place a low estimate upon calomel as anthelmintic. I have found no advantage even in combining calomel with santonin.

Calomel is used by some preferably as an antisyphilitic. When used for this it is often—generally, in fact—combined with opium, or used in fumigation.

Hutchinson uses it in combination with opium, and others have advocated it in this way, but careful study has led me to the belief that other mercurials are better adapted for internal administration in syphilis. The employment of calomel in the treatment of syphilis by fumigation was favored by the late Professor L. P. Yandell and other syphilographers of extensive experience and ability.

That calomel possesses diuretic properties there can be no reasonable doubt. It is combined with squill and other diuretic drugs in the treatment of dropsy and other conditions by many practitioners. Still the trend of the medical profession is against the employment of calomel for this purpose. The associated evil results which may flow from the employment of calomel, plus the fact that as good or better results may be attained from other remedies which are essentially harmless, are sufficient to relegate the employment of the agent as a diuretic.

A great many practitioners, for reasons already given, have the idea that calomel is appropriate and very valuable in the treatment of affections of the liver. On this point I may quote the words of Bartholow, who says, "The experience of the India medical officers has shown conclusively that mercurials are harmful in acute hepatitis, hepatic abscesses, jaundice from gall stones, acute yellow atrophy, etc. As these affections are very rife in India, an experience which has led to such conclusions should be heeded." It is thought by some physicians that in the diarrheas of infants and children, that calomel is most valuable. There is, to my mind, no greater mistake. A trial of calomel on a large scale has thoroughly convinced me that it exerts no beneficial action; but, in fact, works great detriment to the patient and often leads to disastrous results. On this point the author just quoted says, "Children are quickly poisoned by mercurials, although they are not easily salivated. The spinach-colored stools which so frequently occur in the summer complaint of children, and which are, by ignorant practitioners, supposed to be produced by the mercury administered, really belong to cases of ileo-colitis, and may, by their persistence and profusiveness, signify an increased irritation of the intestinal mucous membrane due to the remedies given." My experience has been to convince me that calomel irritates and therefore intensifies the alimentary canal, where it is administered in the various types of inflammations of this part of the economy. In a very malarious part of the Southern States, where the writer spent a year studying malarial fevers, he was told that it was impossible to attain successful results in the treatment of the various malarial fevers unless the patient was "well

plied with calomel" at the incipiency of the attack. This was found, after a thorough trial in four hundred cases, to be false. I could more quickly control the fevers when calomel was withheld. This conclusion was reached by the late Professor Austin Flint, who tested this assumption in the treatment of malarial fevers in New Orleans. It is no longer thought a wise course to give calomel in pneumonia and other acute inflammatory affections. Formerly it was given in combination with opium. The good results are now known to result from opium. Still, there are found some antiquated men who believe it necessary to "touch the gums" in the treatment of inflammatory affections.

In croup, it is believed by some that calomel is valuable. Some use it in diphtheria, but the assumption of its value is illogical, and not supported by extensive clinical tests. The same can be said of the employment of calomel in typhoid fever.

2511 Portland Ave.

[Written for the MEDICAL BRIEF.]

Oral Hygiene.

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The above title signifies a condition that is everywhere prevalent in the various stages in the mouths of our people, and it is but recently that the oral specialists have concluded that the care of the mouth hygienically is an absolute necessity, and has been almost entirely neglected hitherto. The advisability of having the mouth thoroughly examined at stated intervals by a competent dentist has become a law among the better cultured practitioners of medicine. This new duty on the part of the laity is necessitated on account of the many disorders that are known to arise from a laxity of hygienic care on the part of patients. Dyspepsia, purulent bronchitis, affections resulting from the inflammatory condition of the nasal pharynx, and acute chronic rhinitis, are often the source of a very unpleasant condition—pyogenic exudation from the alveoli, caries of the teeth, destroyed tooth crowns and retained roots are the underlying cause of many of these conditions. Some authorities have called attention to the fact that the salivary excretory excesses because of gingivitis produce digestive disorders, either by the swallowing of vitiated saliva and by pathologically diluted gastric juice, cause indigestion, vomiting and possibly diarrhea, or by the escape of the saliva externally by expectoration, digestion particularly is interfered with through insufficient salivation.

There are times when patients are seen in whom the septic condition of the mouth has reached a stage in which the power of resistance in the affected tissue is completely overcome. The teeth are found to be infected and the mucous membrane is contaminated by coming into contact with them. Inflammations arise and many times ulcers of no mild degree are the result.

The medical practitioner must necessarily refer his patients that are suffering from such conditions to a competent dentist and insist upon the teeth and mouth as a whole being placed in an absolutely normal condition before such patients can possibly expect good results from systemic medication.

My experience in this field of practice is very gratifying, as I have several physicians who regularly refer patients to me for teeth and oral treatment. I am very glad indeed to notice the upward trend on the part of the medical profession recognizing the success achieved in oral treatment by dentists.

The great variety of dental operations performed by our modern dental surgeons are, to many of the laity, surprising, even appalling. The salvation of the natural teeth and their substitution by artificial means is an art well worthy of the highest appreciation. Pages might be written upon the subject, but to sum up in the most concise manner, I shall say that our physicians, irrespective of their specialty, should not forget that they should affiliate with the dentist and oral surgeon professionally, and thus facilitate the scientific labor of each in their special work, and materially aid in cultivating the respect and usefulness of both.

400 Neave Building.

[Written for the MEDICAL BRIEF.]

The Diagnosis and Treatment of Femoral Hernia.

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A femoral hernia may be defined as a protrusion of some portion of the abdominal or pelvic viscera through the crural ring, the anatomical boundaries of which are Poupart's ligament above and in front; Gimbernat's ligament internally, the pubis and pectineus muscle below and behind, and the ilio-pectineal ligament and the portion of the fascia lata covering the femoral vein externally.

As regards the frequency of the occurrence of femoral hernia, approximately eight per cent of all hernias are of this variety, and of all femoral hernias from seventy to eighty per cent occur in women, as, owing to the greater breadth of the female pelvis, in women the femoral ring is much larger than it is in the male. Femoral hernia also occurs most frequently in early adult and middle life, approximately sixty per cent of all cases occurring between the ages of twenty-five and fifty, while less than ten per cent occur in patients under twenty-five. In young children the condition is almost unknown. In unilateral femoral hernia the protrusion appears on the right side nearly twice as often as on the left. Both sides are affected in about ten per cent of all cases.

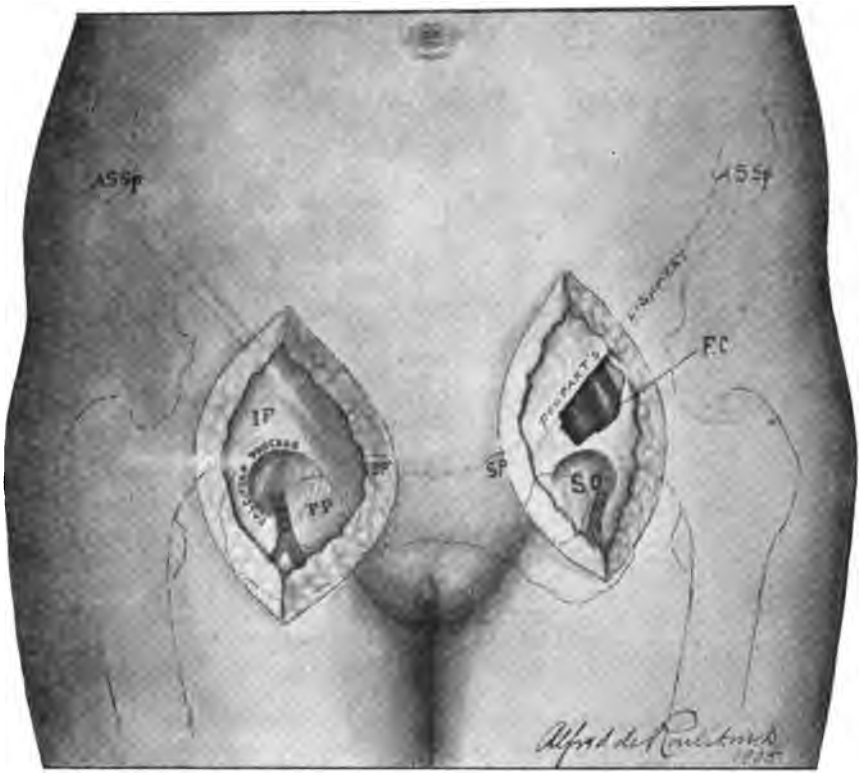

Fig. 1. AS. Sp., anterior superior spine of ilium; FC, opening through fascia to show position of iliac vessels; IP, iliac portion of fascia lata; ISV, internal saphenous vein; PP, pubic portion of fascia ata; SO, saphenous opening; SP, spine of pubis.

In the development of femoral hernia the parietal peritoneum is pushed through the crural canal to the cribriform fascia and emerges at the saphenous opening. The only landmarks of importance are Poupart's ligament above, the femoral vessels externally, and the spine of the pubis internally. (Figures 1 and 2.) Ordinarily

the hernia ranges in size from a walnut to a hen's egg, but in rare instances it may extend down the thigh, attaining the size of a man's fist. In some cases, where the line of least resistance leads upward, the hernia may override Poupart's ligament and closely simulate an inguinal hernia. This extension upward over Poupart's ligament, however, is not a characteristic of this form of hernia, neither does it occur at all frequently, consequently the statements of certain writers that this is the typical form of femoral hernia are erroneous.

The hernial sac usually contains omentum, or omentum and bowel, though in

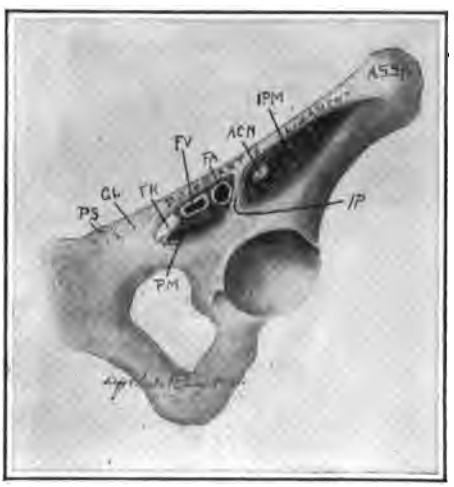

Fig. 2. ACN, anterior cutaneous nerve; ASSp, anterior superior spine of ilium; FA, femoral artery; FR, femoral ring; FV, femoral vein; GL, Gimbernat's ligament; IPM, ilio-psoas muscle; IP, ilio-pectineal ligament; PM, pectineal muscle; PS, pubic spine.

rare instances an ovary, or even a portion of the urinary bladder, has been found.

The signs and symptoms are about the same as in inguinal hernia. Pain of a more or less aching character is observed in the majority of cases, but, as a rule, it is less severe and less constant than in inguinal hernia. The pain is greatly increased by exertion. Swelling, with numbness of the leg on the affected side, is considered by many writers to be an important diagnostic symptom, but it is so rarely seen that it is of little if any value.

Under ordinary circumstances there is no great difficulty experienced in differentiating femoral from inguinal hernia, if it is borne in mind that the protrusion in inguinal hernia appears above Poupart's ligament, while the protrusion in femoral hernia appears below Poupart's ligament. In fat patients, where this ligament can not be outlined, a line drawn from the anterior superior iliac spine to the spine of the pubis, indicates its course and position. In cases of irreducible femoral hernia, where the sac overrides Poupart's ligament, there may be considerable difficulty in making a correct diagnosis, but with patience it is usually possible to determine the condition.

Inflammations of the femoral lymphatics are often mistaken for irreducible femoral hernias and *vice versa*. In adenitis there is no perceptible impulse on coughing, and in most cases it is possible, on careful palpation, to make out a more or less distinctly lobulated condition of the mass, as it usually consists of several glands matted together. Where but a single gland is greatly enlarged the resemblance to an irreducible omental hernia is so striking as to deceive even the elect. In adenitis, however, it is often possible to push the enlarged glands to either side of the femoral ring, thus proving that it does not enter the canal. In obscure cases the history will often furnish valuable aid in making the diagnosis.

Saphenous varix is another source of error in making a diagnosis. The tumor not only resembles exactly a femoral hernia in shape and situation, but it gives a distinct impulse on coughing, and is reducible under pressure when the patient is lying down. The differentiation, however, is so easy as to render a mistake inexcusable. Practically all cases of saphenous varix are accompanied by varicose veins on the thighs and legs, and in all cases of saphenous varix, after the tumor has been reduced, it slowly reappears, even though a firm pressure be applied continuously over the crural ring.

A psoas abscess may resemble a femoral hernia so closely as to render differentiation quite difficult. It may appear in the exact position of the hernial protrusion; it may give an impulse on coughing, and it may disappear on pressure. The differentiation is made by careful palpation. The patient should be placed in the recumbent position; then, with one hand pressed deeply into the pelvis, the exam-

iner makes firm pressure directly on the tumor. Instead of slipping into the abdominal cavity, the tumor is displaced into the pelvis, where it can be felt distinctly. By this method the presence of fluctuation may also be determined. In all cases where there is reason to suspect the presence of psoas abscess the spine and pelvis should be carefully examined for evidences of bone disease.

Carcinoma of the femoral lymphatics may be mistaken for irreducible femoral hernia, but, fortunately, this condition is very rare, and when found is usually secondary to cancer, involving the foot, leg, vulva, or rectum; consequently, a careful examination of these regions is necessary in all doubtful cases. Occasionally a femoral hernia on the right side is diagnosed appendicitis. The dull, aching pain in the groin, extending upward toward McBurney's point, the rigidity of the right rectus, and the exceedingly difficult and painful locomotion, together with a hernial protrusion so small as to be scarcely noticeable, is sufficient to mislead the ordinary observer. This mistake is rather more frequently made in femoral hernias occurring in men than in those occurring in women. In women the pain due to the hernia is not infrequently attributed to ovarian and tubal troubles.

As regards the prognosis in femoral hernia, owing to the frequent presence of omentum in the sac, adhesions soon form, and the hernia early becomes irreducible. Strangulation is frequent, almost a third of all cases of femoral hernia operated on are for the relief of strangulation, rather than for the cure of the hernia. In the cases operated on for the relief of strangulation the death rate is very high, being given by different authors at from twenty to forty per cent. In my opinion twenty-five per cent is a fair estimate. In operations undertaken for the radical cure of non-strangulated femoral hernia the death rate is very low, being in the neighborhood of one-half of one per cent, in skilled hands. Consequently, the patient who declines the operation is run-

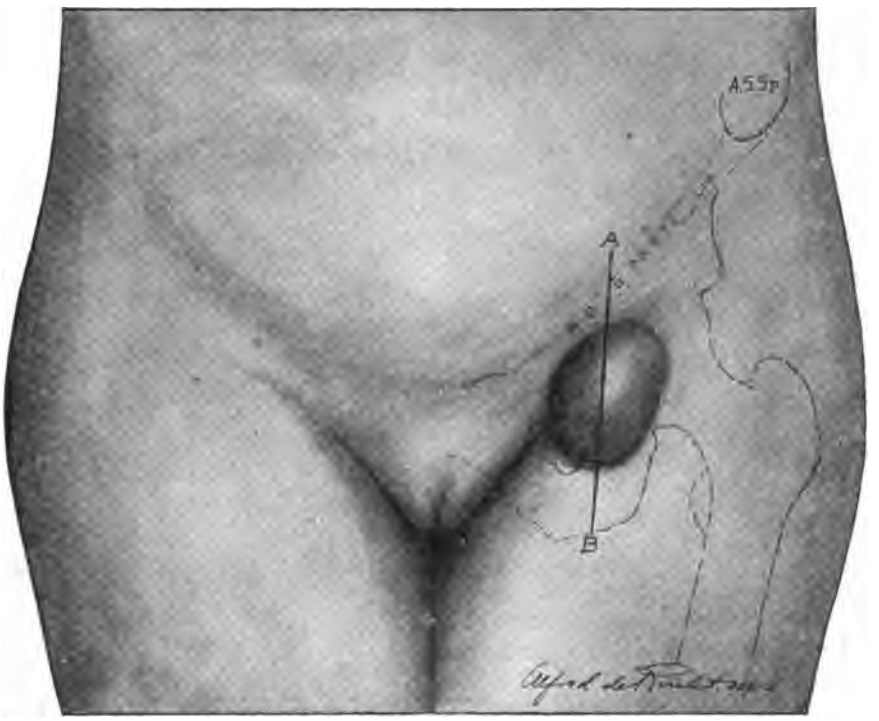

Fig. 3. Showing relation of hernial protrusion to Poupart's ligament; AB, line of incision in radical operation.

ning greater risks than the one who accepts such treatment.

Recurrences of the hernia, after operation, are not frequent, and when they do

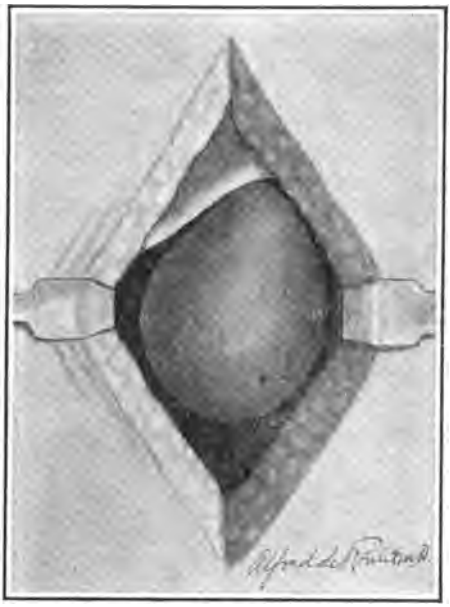

Fig. 4. Hernial sac exposed.

occur may usually be traced to some fault in the operative technique, as imperfect clearing of the canal. Occasionally, however, the recurrence may be due to causes which could neither be foreseen, nor prevented. For example, in the only case of this kind which has come under my observation the recurrence immediately followed a violent fit of vomiting two weeks after the operation.

The treatment is essentially operative. No treatment other than a radical operation has ever been known to cure femoral hernia. Owing to the proximity of the femoral vessels, the injection method is exceedingly dangerous, as well as of questionable value, while a truss is applicable only in cases of reducible hernia, after the hernia has been reduced, and even then can not be relied upon implicitly.

The particular operation employed is not of vital importance, so long as the crural ring is entirely cleared of hernial tissue before it is finally closed. An operator will secure the best results with the operation with the technique of which he is most familiar. In my hands the following operation has given the best results. It has simplicity and effectiveness in its favor, and it does not disturb the normal anatomical relations:

The incision (Fig. 3, AB) should begin well above Poupart's ligament and extend downward for about three inches, parallel with and to the inner side of the femoral blood vessels. As the skin and superficial fascia are divided the hernial sac bulges into the wound. (Fig. 4.) The sac should be freed by blunt dissection from all attachments, special care being taken to isolate the portion of the sac passing through the femoral ring. This procedure is greatly facilitated by making gentle traction on the entire hernial mass. After the sac is entirely freed it is carefully opened and the contents examined. Omental adhesions are often found, while adhesions between the sac and the bowel are comparatively infrequent. Should adherent omentum be found it should be carefully ligated and cut off, and the stump returned to the abdominal cavity. Where

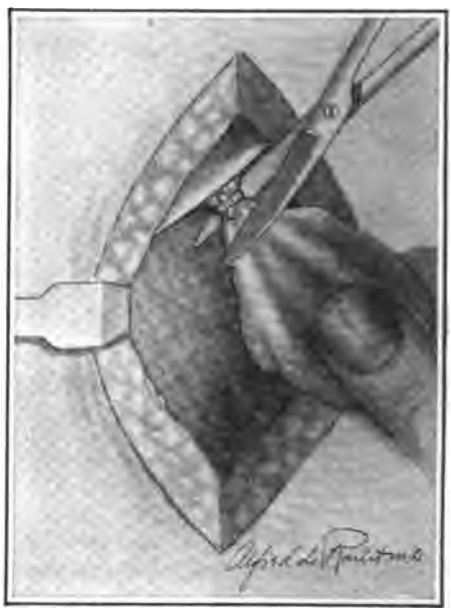

Fig. 5. Hernial sac ligated and cut off.

the bowel is adherent, if the adhesions are neither firm, nor extensive, they may be cautiously broken up, but should they prove so firm as to render this procedure dangerous, it is best to trim out the adherent parts of the sac and leave them

attached to the bowel when it is returned to the abdominal cavity.

After the sac has been entirely freed of its contents it is drawn down as far as possible, and the neck transfixed and ligated close to the femoral ring. For this purpose No. 2 catgut is the best material. The sac is now cut off (Fig. 5), and should the stump not immediately retract well within the abdominal cavity, it should be carefully pushed back. It is absolutely essential to the success of the operation that no trace of hernial tissue be left in the crural canal.

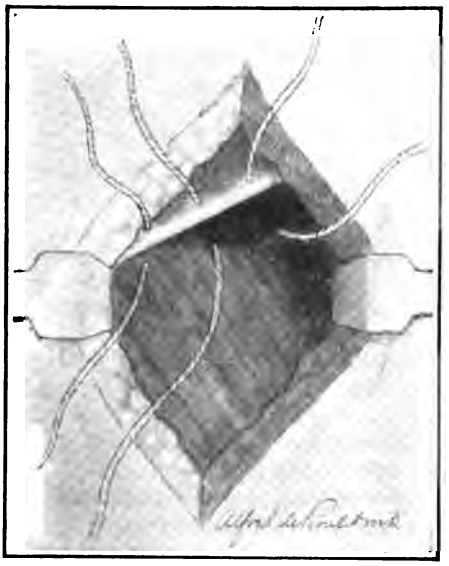

Fig. 6. Sutures placed but not tied.

The tip of a finger is now pushed up into the femoral ring to protect the femoral vessels, while the first suture is passed through Poupart's ligament, then the finger is withdrawn and the needle continued downward through pectineal muscle to the periosteum of the pubis, then forward through the tissue overlying the femoral vein. This is the first stitch; the others are placed in exactly the same manner, a quarter of an inch apart from the outer angle of the femoral ring to the pubic spine. (Fig. 6.) When the sutures are tied the lower edge of the inner end of Poupart's ligament is brought in contact with the pubis (Fig. 7), and the femoral opening is obliterated. It is immaterial whether the continuous or the interrupted suture is employed. Personally, I prefer the continuous, but for the sake of greater clearness have shown the interrupted suture in the illustrations.

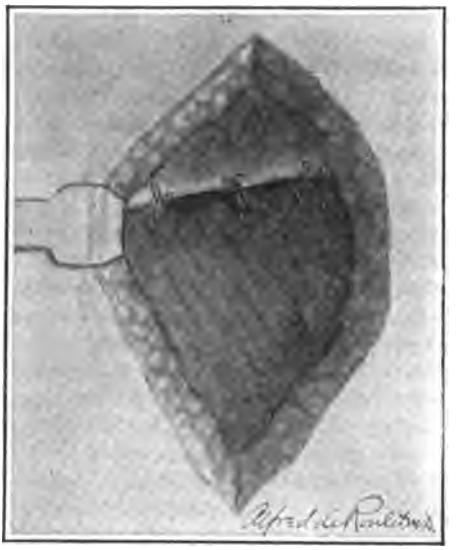

Fig. 7. Sutures tied, and Poupart's ligament drawn down on horizontal ramus of pubes.

In some instances it would seem advisable to bring the edges of the superficial fascia together with a continuous catgut suture. The skin is closed with a running catgut or silk suture.

The wound should be dressed with a large compress of gauze wrung out of a hot, saturated solution of boracic acid,

Fig. 8. Dressing applied.

over this several layers of dry cotton, and the whole held in place with a binder, as shown in Figure 8. This binder is simply a piece of heavy, unbleached sheeting,

four feet long and eighteen inches wide, with a strip four inches wide torn along the lower edge to a point eighteen inches from the end. A reference to the illustration renders any explanation as to its application unnecessary.

The dressing should not be disturbed for ten days, unless the patient complains of pain, or develops a temperature of over 100° F., or wound secretions show through the dressing. Frequent changes of the dressing only delays healing in an aseptic wound, to say nothing of fatiguing the patient and increasing the possibilities of infection.

At the end of ten days the first dressing is removed, and the wound should be found practically healed. If silk has been employed for closing the skin the stitches may now be removed, and a small, dry dressing, with a firmly applied binder for support, may now be applied.

If healing has progressed satisfactorily the patient may be allowed to sit up after the tenth day, but should not be allowed to leave her room for at least two weeks after the operation. She may resume ordinary housework in from four to six weeks, but should not attempt violent exercise or very hard work for at least three months.

The use of a truss after operation is not advisable. Its more or less problematic advantages, in the way of furnishing support to the parts, are more than counterbalanced by its very evident deleterious effects in the production of pressure atrophy.

The best ultimate results follow a properly-performed operation, followed by four to six weeks' rest and three months' abstinence from violent exercise.

1013 Venetian Building.

[Written for the MEDICAL BRIEF.]

Swollen Rheumatic Joints.

BY W. T. MARRS, M. D.,
Jewett, Ill.

Wrap in cloths wrung from ice water. The pain and swelling subside, and you gain credit for having performed almost a miracle.

[Written for the MEDICAL BRIEF.]

Some Remarks on Colles Fracture.

BY W. S. WIATT, M. D.,
Professor of Fractures in St. Louis College of Physicians and Surgeons.
East St. Louis, Ill.

Since the description of fracture of the lower end of the radius by Colles in 1814, possibly no fracture has given rise to more suits for malpractice. The reasons for this may be given as follows:

1. Improper or incomplete reduction.
2. Improper retention apparatus.

The cause of this injury is indirect violence, the patient falling on the pronated hand. This has an important bearing on the position which the fragments assume in most cases. The line of fracture is transverse, the lower fragment generally mounting upwards behind the lower end of the upper fragment, or impaction may take place.

The symptoms are pain, localized, and increased on pressure; numbness and tingling sensations may be present through the thumb and index finger. Abnormal mobility and crepitus are difficult to elicit at times, and if impaction be present they are absent. Loss of function is manifested in the patient's inability to use the hand and forearm.

The deformity is characteristic and has been described by Liston as a "silver fork" deformity. It is due to the position of the lower fragment lying on the back of the lower end of the upper fragment. This bulging on the back of the forearm and corresponding depression on the front produces a curvature of the wrist resembling the back of a fork. Frequently laceration of the internal lateral ligament of the wrist joint accompanies this fracture. It may also be associated with fracture of the styloid process of the ulna. If the ulna be dislocated inward, due to laceration of the internal lateral ligament, the styloid process can be felt prominently and the deformity readily made out.

The lower fragment, when situated as it is, on the back of the lower end of the upper fragment, most generally has a bridge of periosteum extending from its posterior surface to the posterior surface of the upper fragment. This should al-

ways be remembered, for if manipulations are not made to relax this bridge of periosteum, reduction may be difficult or incomplete.

This bridge of periosteum, which Pilcher has shown to be present, extending from the back of the lower fragment to the back of the upper fragment, is put upon the stretch, so to speak, so that if reduction be attempted by making straight traction on the fragment, it will be impossible to pull the lower fragment down so as to get it in correct apposition with the upper fragment without tearing in two this bridge of periosteum. In order to relax this bridge, the surgeon must hyperextend the hand, and with the hand hyperextended as far as possible, make straight traction, and then flex the hand.

By the first maneuver, hyperextension, this periosteal bridge is relaxed.

By the second maneuver, straight traction, the lower fragment is pulled from the back of the upper fragment, thence into the position it should occupy, between the carpus and the upper fragment.

By the third maneuver, flexion of the hand and wrist, the lower fragment is pushed into position, making correct apposition of the fragments complete.

Sometimes this fracture is produced by a fall on the back of the hand, then the lower fragment, instead of mounting up behind the lower end of the upper fragment, mounts up in front of the lower end of the upper fragment. This position of the fragments is so rare, however, that it scarcely need be mentioned.

After securing correct apposition of the fragments, the next step in the rational treatment of any fracture is to keep the fragments in end to end apposition.

Numberless splints have been suggested and used for the treatment of Colles fracture. We believe that none of these splints has any feature of sufficient value to especially commend it. We use a straight splint on the flexor side of the forearm, applied as follows:

Lay the patient's forearm on a shingle, mark the shingle on either side corresponding to the contour of the forearm, allowing the ends of the splint to extend from the ends of the fingers to the internal condyle of the humerus. The splint is padded. The fracture is reduced, and if there is an internal dislocation of the ulna, the ulna is pushed back into position, cotton padding is placed under the carpus to fill up any concavity which may be due to the natural contour of the wrist at this point. The wrist is then secured for an inch below the site of the fracture, as well as an inch above, to the splint, with surgeon's adhesive plaster. A spiral reversed bandage then secures the splint to the forearm, and the forearm is then placed in a sling, the thumb pointing to the chin.

This adhesive plaster insures correct approximation of the fragments and prevents any displacement.

If the ulna be dislocated inward, the adhesive plaster will prevent a recurrence of this dislocation, if proper reduction is made before it is applied.

The author has treated a number of cases of Colles' fracture, and has found this to be the most suitable apparatus for retention of the fragments in apposition and has had no case as yet to be followed by deformity or impaired mobility.

403 Collinsville Avenue.

[Written for the MEDICAL BRIEF.]

The Pathology and a Satisfactory Method of Treating External Hemorrhoids.

BY LOUIS J. KROUSE, M. D.,
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Cincinnati, Ohio.

There is little question but that hemorrhoids are dependent upon some pathological alteration of the hemorrhoidal veins for their origin, and these pathological changes being present any undue pressure may cause an aneurysmal dilatation of the vein. It is true also that the internal coat of the vessel being altered, there is more tendency for the coagulation of blood with the formation of a clot; also that the sexual activity of an individual increases the intravenous pressure and causes a stagnation of the blood which favors the development of the tumor. It is therefore a disease of adult life.

External hemorrhoids are usually divided into two distinct varieties, the acute

or sanguineous, and the chronic or connective tissue variety.

The acute or sanguineous are usually found single, of globular shape, tense in outline, bluish in color, and very sensitive to the touch. The size varies from a pin's head to that of a small walnut.

The chronic or connective tissue type is the later stage of the acute sanguineous variety.

The acute or thrombotic piles are connected with the inferior hemorrhoidal veins, and are due to a thrombosis forming in an aneurysmal dilatation of the vein, and are situated in the vessel and not in the connective tissue outside of the vein. In other words, the clot is found in the vein and is not an extravasation of blood in the connective tissue.

In order to have a thrombotic hemorrhoid it is necessary to have a diseased condition of the walls of the vein. The pathological causes producing this are the same as those which produce a varicose condition of the long saphenous vein of the leg, and the spermatic veins of the cord.

The majority of authorities state that external piles are due to a rupture of the blood vessel with extravasation of blood in the surrounding connective tissue. Nowhere else in the body do we find a similar clot formed from an extravasation. Artificially we can not produce a clot in this region by lacerating the vessels. In the preliminary step for all operations on the lower end of the rectum the sphincters are dilated, and, as a consequence, the blood vessels are ruptured. We merely see a discoloration of the parts due to extravasation of blood, similar to that met with in other parts of the body, but we do not meet with the little clot as we see it in external pile. This, to my mind, proves conclusively that external hemorrhoids are not due to extravasation, but to a thrombosis formed in the vein.

While there is very little likelihood of an error in diagnosis, it not infrequently happens that sentinel piles, on the border of an irritable ulcer, or venereal warts or condylomata, are mistaken for them.

Treatment is simple, consisting mainly in keeping the bowels open, and applying soothing lotions to the parts. When medicinal treatment does not avail, operation is to be recommended. That consists in the removal of the offending parts.

The connective tissue variety being the later stage of the acute thrombotic, is less painful, and can be removed, under local anesthesia, by means of a scissors, the tissue being cut to the level of the surrounding skin.

In the sanguineous variety, the first step is the injection, with a hypodermic needle, of a local anesthetic, cocaine or sterilized water, after a thorough cleansing of the parts. With a tenaculum the tumor is transfixed and the top of the pile is cut off.

A method very commonly advocated is to split the tumor with a sharp bistoury, turn out the clot, and insert a small gauze drainage, which is permitted to remain for a day or two.

My preference for the first method is based upon the fact that the external wound is constantly open, and allows free drainage; there is little possibility of a reaccumulation of blood in the sac.

"The Groton."

[Written for the MEDICAL BRIEF.]

The Value of Gynecological Examinations.

BY BEN L. DORSEY, M. D.,
Professor of Gynecology Barnes University.
St. Louis, Mo.

Owing to a lack of knowledge of various gynecological conditions, many physicians refrain from interceding in their patient's behalf. In many locations where valuable counsel is unavailable, physicians do not enter into details in making proper examinations. How often are we confronted with gastric symptoms found in patients who have been treated year after year with various remedial agents in the hands of many physicians. In such cases had these physicians used palpation, percussion, or even availed themselves of the assistance of anesthesia, they could have determined beyond a doubt the existence of a floating or wandering kidney, and a condition be revealed which no amount of anti-dyspeptic treatment could remedy.

Again, modesty is also a factor which may prevent many sincere physicians

from making a proper diagnosis, and the results secured are not those which have a tendency to elevate the physician in the eyes of his patient.

Many symptoms are so slight as to pass unnoticed by the patient, and yet are of marked interest to the physician. Especially is this true in the younger cases. Occasionally we are confronted by certain conditions, the symptoms of which are almost pathognomonic of a widely dissimilar condition. Many patients, women in particular, are not quite sincere, and their statements may not be confined to any point which may be of interest to you from a diagnostic standpoint. On the other hand, we may find patients who are sincere so far as their knowledge is concerned, who have years previously been treated for conditions of which they were not aware, and as a consequence, these patients are not prepared to make a proper statement when questioned by you for diagnosis. We see this illustrated every day in our clinics. How many cases of salpingitis, due to gonorrheal infection of many years standing, have you treated? And yet the patient may declare that no such infection had ever occurred. Nor are women always honest with the physician regarding the number of abortions which may have occurred, nor the time of their occurrence. How frequently will a little laceration of the cervix, or a discoloration of the mammary glands, or Montgomery's follicles, cause the physician to pause? Many times have I noticed the stria gravidarium in certain cases in which the husband would have been shocked had you informed him that his wife had given birth to a babe at full term, or that an abdominal cystic condition had formerly existed.

Subjective symptoms are often of no importance in making a diagnosis. We should depend largely upon palpation, bimanual examination, the microscope, cystoscope, anesthesia and inspection.

Position during examination is of importance. The knee-chest position enables us at times to discover certain tubal conditions which had not been suspected.

Even the recto-vaginal examination may determine certain forms of anti-flexion which have been mistaken for uterine fibroids. Patience is also a factor, and if more generally exercised early operations for fibroids, fibromas and cystic conditions would not terminate when pregnancy was discovered. In cases where the physician is in doubt and no symptoms exist which indicate an early operation, it is wise to be cautious before submitting the patient to a celiotomy or any operation.

309 Century Building.

[Written for the MEDICAL BRIEF.]

A Few Important Details Necessary for Infant Feeding.

BY LOUIS FISCHER, M. D.,
New York City.

The problem of infant feeding is one that requires thought and consideration. When breast milk can be procured, then the problem is usually solved. On the other hand, when we must resort to "hand" feeding, then the details necessary must be carefully studied.

It is strange that the food in a given formula will be digested and retained, and give marked evidence of "agreeing" with the baby. This same formula prepared in the same manner and prescribed for an infant of the same age and apparently the same development, may cause marked gastric or enteric disturbance, and give no end of trouble.

The question, therefore, arises, why is this so? Is it because there are different degrees of assimilation, or is it because the gastric or enteric secretions are not as well developed, or are of a different quality; or, is it because of the various methods of heating the milk?

That this is usually so is proven by the fact that the formula heated to a temperature of 212° F. will, usually, induce constipation. Whereas, the same formula, heated to a temperature of 150° F. (usual temperature of pasteurization), or simply warming the mixture to blood head (temperature, 100° F.), gives a soft, homogeneous stool.

To be sure, regarding the proper assimilation of any food in an infant, it is necessary to study its individual requirement. In my book* on infant feeding

* Louis Fisher, "Infant Feeding in Health and Disease," third edition, F. A. Davis & Co., on p. 103.

I lay down a series of rules that should govern the feeding of infants in general.

Each child is a law unto itself and its individual wants must be studied.

One child will gain on the same mixture on which another will lose weight.

The infant must appear satisfied after taking its bottle.

There should be no vomiting, nor severe colicky pains.

The bowels must move unaided, at least once or twice in twenty-four hours. The stools should be yellowish white and medium soft.

The infant should sleep from four to eight hours, at one time, during the night.

The weight must be taken regularly once a week. If an infant thrives it should gain at least four to eight ounces every week. When the child's weight shows no increase, then study the reason, and by all means change the food. It may require more substantial food.

In a discussion on the subject of infant feeding before the Academy of Medicine, October 18, 1900, a few points were mentioned which I should like to emphasize.

First, how should food be heated? A good plan to follow is to imitate Nature. In this way we know what an infant should receive and digest. The breast milk of a woman is *raw*. It is neither boiled nor sterilized. For a number of years I have carefully noted the effect of sterilized milk on the stomach, and more especially on the bowels, and have invariably found a slower movement of digestion, more gastric disturbance, less thorough assimilation of food, as evidenced by cheesy, curded particles of casein, which can be seen in the stools.

The general development of an infant reared on sterilized milk is poor. None will deny that the majority of children fed on sterilized milk develop rickets. Such rickets may be manifested in the earliest stages by constipation. Years ago constipation was looked upon as an early sign of rickets. To my mind it is simply an atony of the stomach, and more especially an atonic condition of the muscular linings of the intestines. The same flabby muscular development which pervades the whole system, the muscles of the arms, back and legs, the muscles of the abdomen show a loss of tone and loss of strength. When such stagnant stool exists and it can be traced to the use of sterilized food, then the remedy is very simple.

I have frequently found cases of scurvy which could be traced to super-heated milk. This over-heating destroys the digestibility of the food and gives the stomach and intestines more work. When it is apparent we are dealing with a case of scurvy then the usual remedy is to substitute raw milk, or simply warm milk, instead of the boiled or sterilized milk, which has caused the trouble. I, therefore, have been led into the habit of giving sterilized milk, which usually results in rickets or scurvy, and then treating the condition by giving raw milk. It seems to me, therefore, that we should impress upon those who modify milk that the principle of sterilization should be employed in the stable; to the cow, to her udder, to the milker's hands, the pail, and to every utensil brought into contact with cow's milk. In other words, it is our duty to prevent contamination, which means prevent filth from entering the milk. It is self-understood that if manure or dirt is in the milk that we can not produce a healthy baby by boiling such filth with the milk. Fortunately, by the aid of the Milk Commission and the efficient service of the New York Health Board, we are receiving certified milk, which is carefully inspected, and can be fed in the raw state without fear of causing tuberculosis or other diseases.

[Written for the MEDICAL BRIEF.]

A Variety of Findings Between Cause and Effect.

BY PATRICK T. MELDON,

An Experimental Medical Scientist.
San Bernardino, Cal.

We often meet a man who is a very swift runner, or quick walker, but in his physical appearance we see nothing out of the ordinary. He may be rather a short, stout man, or he may be rather tall, tapering and slender. As a rule, the short man has solid flesh and tense and well-developed muscles; the tall man's flesh and muscles are, so to speak, six or eight

imaginary degrees less solid and tense. Another rule which applies to this class of individuals—it should be noted—is their antipathy for physical labor, and their quiet solicitation for a comfortable position in which to sit or to sleep.

In following up a series of investigations among this class of individuals, I noticed a young man of the tall type—a swift runner—in his natural position of sleep. He was so contorted and twisted in the bed clothes it puzzled me to determine which end of him his head was on. "Wake up, Joe," I called lowly and touched him gently. And then stepped aside, remaining perfectly quiet to watch his every action. He slowly sat up in bed, drew up his legs and rested his hands and chin on his knees for all of three minutes. I expected to see him step out of bed at once and stretch and relieve himself after his long-endured contorted position. He stepped out, finally, humped up and stooped over, and gruntingly got into his breeches. He then walked out of his room almost as silently as an owl on wing and, apparently, as swift as a falcon. And, after all, it took him all of twenty minutes before he could straighten himself up perfectly and walk in his natural bearing.

Continuing those investigations showed that this class of individuals—all of them —prefer to sleep, or instinctively sleep, in a contorted position. The contorted position maintains the contractile power of the muscles; while the stretched straightout position strains and exhausts them. A man who sleeps only five hours with his legs well drawn up will get up more refreshed and rested than the man who sleeps eight hours with his legs stretched straight out.

Those findings—without confliction—showed plainly the power which underlies swift running, or quick walking; it is an extraordinary development and well-preserved power of muscular contractility.

An extraordinary development of muscular contractility is no criterion of longevity, yet no man can expect to attain a great age without it. A constitutionally relaxed condition of the muscles means poor health and, of course, not more than moderately long life. It is needless to mention how agile some men are, even at eighty years of age. And in tracing back their life's history we find that they had been very swift runners and quick walkers. Have you ever listened to a very old man tell of how fast he could run in his day and think him only senile and boasting?

The muscles and nerves are co-ordinate with each other, so if a mechanical position of the body—while sleeping—will favor the muscles, it must also favor the nerves. When the muscles are strained and relaxed the nerves are also strained and relaxed; the legs stretched straight out in sleeping the nerves are painfully influenced by the mind, and the resultant suffering is termed rheumatism.

There are two forms of rheumatism—and only those we shall consider—which are evidently manifest in a strained condition of the muscles; those forms are inflammatory and muscular rheumatism. It is the same disease in either case, but its manifestations differ, according to the constitutional nature of the individual. It is inflammatory rheumatism in those who are fleshy, and muscular in those who are lean. The disease easily inflames the plethora in those who have it, and the result, of course, is inflammatory rheumatism. A want of plethora leaves the disease little of anything to inflame; so, in this case—in muscular rheumatism —we see only the muscles apparently affected.

Impure blood is generally regarded as the cause of rheumatism, and it may be so, but since toning the blood to the best possible condition will not even relieve that disease, I do not much credit impure blood as a cause of any rheumatic affection.

The potency of the mind, in this disease, is always directed toward recovering her lost muscular power of contractility. She often does this perfectly, but she often works instinctively, and frequently does her work imperfectly. We often hear a man say, "I have had rheumatism, but it has left me entirely." In that case the instinctive power of the mind worked a perfect cure. In other cases the muscles retrograde, the digitals and other bones are twisted, and joints forced out of their sockets. Here the mind works on faithful and blindedly, and does her work imper-

fectly. It may be said, she works on faithfully, constantly and instinctively, and never knows when to stop. She instinctively works on, often doing more than is necessary; for instance, in uniting broken bones. And in the same way she instinctively works on, often doing more than is necessary—actually an injury in disease of the muscles.

In treating rheumatism as a loss of muscular contractility, one gets the best results. But one ought to have a clear knowledge of the instinctive action of the mind in this disease, and treat the disease accordingly. With this knowledge one can realize the drugs indicated in the incipiency of the case; he sees how long to continue them, when to suspend them, and when to counteract their action with other drugs, if the influence of the mind is going against him.

There are three stages of rheumatism. They are the first, second and third stages. The first stage is from the incipiency of the case to the subsidence of the acute pains and a stiffening of the joints. The second stage sets in as the joints begin to stiffen. While the third stage begins as the joints are being forced out of their socket.

This disease is decidedly curable in its first stage, and with our present knowledge of it, we have the satisfaction of knowing that it can at least be treated thoroughly scientific, with yet the possibility of curing it in any of its stages.

I have closely watched this disease for several years, yet I have treated it only in its first stage. In fact, I have made no attempt to treat it in recent years, as the result of special confinement to other investigations.

Treatment—First Stage.—Inflammatory case: Put the patient on a substantial, nutritious diet; sweat him judiciously, and compel him to sleep in a contorted position, with his legs well drawn up; a mechanical covering of the patient in bed will force this position. Cover him according to the temperature of the weather. If the weather is wintry cold, cover full length of his body with a double blanket of ordinary weight. Fold the next blanket back from his neck, so that the other end of it reaches between his knees and his ankle. The next cover must be folded back so that it reaches only to his knees. On that principle cover the patient in any condition of weather and he will, instinctively, draw up his legs while sleeping.

Every rheumatic patient is disposed to sleep, or rest, stretched straight out; so by simply opposing this disposition an essential step is taken in curing his disease. In fact, too much can not be said in favor of the contorted position in the treatment of rheumatism. Even if the disease is only located in the ankle or wrist, a drawing up of the legs and a drawing inward of the arms will afford it astonishing relief. Next to this treatment are the drugs which assist the mind in recovering her lost muscular power of contractility. And in this strychnin, nux vomica, ergot and dilute phosphoric acid have given the very best satisfaction.

In some cases the muscles retrograde very rapidly in rheumatism, and on that account those drugs are safest when given in their minimum doses; they are contraindicated when the joints evidence the slightest sign of stiffening. As an internal remedy, give three drops of fluid extract of cactus on three to six grains of powdered cubeba three times a day. It stimulates the heart, warms the circulation, and reduces the inflammation by a copious increase in the flow of urine.

Give the patient as many complete immersion hot baths as thought advisable, being careful not to reduce him too severely by this treatment.

The importance of sound sleep in the treatment of rheumatism can not be overestimated; always see to it promptly. From two to five drops of tincture of deodorized opium has given good result in most cases. The patient should be told to take it on his tongue and resist swallowing it as long as possible. In that way its hypnotic influence is had with the least nauseating effect.

Keep the bowels always in a soluble condition, and for this give whatever you think best adapted to the individual case, yet for my part I have found the fluid extract of dandelion to be a very reliable all-around remedy.

Muscular Rheumatism.—It seems to me as if this form of the disease is most rapid in its progress; the muscles are likely to

retrograde rapidly, or the case goes rapidly on to recovery. On this account strychnin, nux vomica or ergot should be used with the utmost caution. One ought to know just how far the disease has progressed before using them, if at all. Hot baths and copious sweating are not advisable in muscular rheumatism, but the rest of the treatment—cubeba and cactus, and dilute phosphoric acid—can be continued.

Always make a reliable diagnosis before offering treatment; the haphazard treatment of rheumatism is constantly causing untold misery. When the second stage makes its appearance in rheumatism it would be best not to treat it at all, if not to treat it consistently. The second and third stages, no doubt, can be treated as one, yet they should, apparently, be treated with drugs opposed to the action of strychnin, nux vomica, and ergot. And, as a matter of suggestion, it seems as if cimicifuga, potassium bromide, chloral, and amyl (nitrite) nitris could be well employed in those stages.

The second and third stages of rheumatism are the result of imperfect sleep. Sleep is the curative influence of the mind over the body. And it is during the awful pain in rheumatism and its attending discontented sleep that the mind does her instinctive injury in disease of the muscles. For that reason I have suggested the use of chloral, and apparently it should be used in time.

Of course, it is needless to say that muscular relaxation is "not" the cause of rheumatism; it is simply the effect of whatever causes the muscles to relax. The muscles may be relaxed, or strained, by constantly maintaining a stretched-out position while sleeping, by hard manual labor, or by exposure to sudden extremes of cold and heat. But exposure to rain and cold, and frequent contact with fresh water—hot or cold—is one of the worst causes of rheumatism, and also a cause of various neurotic affections. Exposure to salt water, as we see in the case of sailors, has just the opposite effect. Sailors, as a result of constantly breathing a salty atmosphere and frequent contact with a blinding salty spray, have solid muscles, steady nerves, and sound and clear lungs.

Sodium chloride is evidently Nature's greatest prophylactic; and in that it seems to be essential in protecting the blood serum against the inoculation of a disease from without, or against the absorption of it from within. But what is most significant in this respect is: Salt unquestionably aids in conducting the impulses of the mind throughout the body, just as molecules of metal aid in conducting a current of electricity from pole to pole. Contact and exposure to rain and fresh water washes the blood serum, as it were, clear of its salt, enfeebling the influence of the mind over the body, causing the nerves and muscles to weaken and resulting in neurotic and muscular affections.

The following table shows how sparingly ailing individuals had been in using salt in excess of the salt used in the cooking of their food:

	Patients.	Used salt moderately.	Never cared for salt, used it only seldom.
Neurotic Affections	100	29	71
Rheumatic	100	15	85
Tubercular	100	18	82

This table would indicate that salt is not quite as essential to the nerves as it is to the muscles.

[Written for the MEDICAL BRIEF.]

Histories of and Deductions From Thirty Operations for Hypertrophied Prostate.

BY M. R. BARKER, M. S., M. D.,
Chicago, Ill.

In previous papers we have given our ideas concerning prostatectomy, and shown our methods in thirty perineal operations. In this paper it shall be our aim to give short and concise clinical histories of these patients, before and after the operation. To do this it will be necessary to abridge, as much as possible; also, to classify the cases. We have stated, in a previous paper, that there were three kinds of hypertrophied prostates, based upon the kind of tissues that enlarges in each case. First, the large, soft prostate, due to hypertrophy of the muscular tissue and over-cell growth. Second, a smaller and more dense form, due to the hyper-

trophy of both muscular and fibrous tissues. Third, a very small and dense form, due to the hypertrophy of fibrous tissue alone. Our first classification will be made upon this basis.

Fig. 1. One-third size.

Of these thirty cases, there were twenty-two of the first-class, or of the large, soft variety. As a matter of course these prostates were not all of the same size, nor shape, neither were they of exactly the same consistency, but they all belong to this general class. Figures 1, 2 and 3 illustrate very well this general class of prostates. Each lobe of these prostates was removed separately and then put in as nearly the same relation to each other as they occupied before being removed, and photographs taken.

There were six cases of the second general class, the prostates in this group being much smaller, harder and more nodular. Figures 4 and 5 illustrate quite well this class of cases. Figure 4 illustrates that class of cases where there are two lateral lobes enlarged and a middle lobe. Figures 3 and 5 have no middle lobe; each lateral lobe is enlarged.

Of the third general class, there were two cases. We can not illustrate this class with photographs, as we had to remove them by morcellement.

These three general classes we shall subdivide into three other classes, according to the physical condition of the patients when presented for operation, as follows: The feeble, incapacitated and partially incapacitated classes.

Of the first general class, that is, of the large soft prostates, there were eight in the feeble, ten in the incapacitated, and four in the partially incapacitated, classes. Of the feeble in this group, there were all degrees of feebleness, from the patient who is able to totter around with a cane, to the one who could not turn in bed without assistance. They were from sixty to eighty years old, and had led catheter lives from six to eleven years; that is, the shortest catheter life among them was six, and the longest eleven years. They had been troubled with enuresis from one to five years. They were all septic. Six of them had from three to five ounces residual urine; micturition from every fifteen minutes to an hour and a half, day and night. Smarting, burning and tenesmus accompanied micturition. All were emaciated. All of this group but two were treated for two weeks before the operation, by means of a catheter through the urethra. Their bladders were irrigated with some antiseptic solution three times daily. We have used in these cases, with equal success, permanganate of potash, and boric acid solutions. Large quantities of water and milk were given. It was impossible to pass the catheter in the other two cases, hence supra-pubic cystotomy was done for drainage and treatment of the bladder. One of these cases died of senile pneumonia four days after the cystotomy, and before we had attempted to remove the prostate. Perineal prostatectomies were done on the other seven cases.

Results in these eight cases: One died as above stated; three were cured of all urinary troubles within one month; two had perineal fistulæ lasting, respectively, six and eight weeks after the operation;

Fig. 2. One-third size.

one had enuresis four months after the operation; one had dysuria, and was compelled to use the catheter about three times a week, for three months, after the operation. Seven were completely cured

of all urinary troubles within four months after the operation. We must remember that this was the feeble class. They had lost their grip, and had given up the fight.

The per cent of cures within one month after the operation, mortality and post-operative troubles, in this group, based upon the thirty cases treated, is as follows:

Cured, ten per cent; perineal fistulæ, six and two-thirds per cent; enuresis, three and one-third per cent; dysuria, three and one-third per cent; died, three and one-third per cent.

Of the ten in the incapacitated group of the first general class, there was not a wide range in their disability. They were incapacitated for business and pleasure by reason of the frequent necessity for passing urine, or using the catheter. Four of this group had never used the catheter, but were compelled, during the day, to use the urinal every hour, and at times more frequently. The six who were using the catheter could not tell when they would have to use it—sometimes once an hour, and sometimes the interval would be longer. The sensation of wanting to urinate, and a dribbling of urine, would come at the same time, thus compelling them to wear something either to absorb or to catch the urine that escaped before they could use the catheter. Each one of the six gave histories of cystitis, from one to five attacks, which had been relieved for the time. They had led catheter lives from two to five years. Each had residual urine from three to six ounces. None of this whole group of ten were septic when presented for operation. The oldest of this group was eighty-two, and the youngest fifty-five years. Perineal prostatectomy was done in each case. Results of the operation in these ten cases were: Nine were cured of all urinary troubles within one month; one had a perineal fistula for two months after the operation. The per cent of cures within one month after the operation, and post-operative troubles lasting longer than a month after the operation in this group, based upon the thirty cases operated upon, is as follows:

Cured, thirty per cent; perineal fistulæ, three and one-third per cent.

The histories of the partially incapacitated group, of the first general class, are about as follows: Ages, from sixty-two to sixty-eight years. For a number of years all had dysuria—more or less severe—not sufficient, however, to cause any alarm, or to arouse any suspicion other than that they were growing older, and they attributed their trouble to that. This is the history of most prostatics. Each of the four gave a history of exposure to wet or cold, which was followed by complete urinary stoppage. A physician was called, passed the catheter and relieved the patient. After this followed catheter life for from one month to ten weeks. After one month one of the group could pass his urine quite well, and the other three at different times during the ten weeks. These patients had now intervals of from six weeks to four months before the trouble returned, and catheter life again commenced. During these intervals these patients attended to their duties as usual. They had led this interrupted catheter life for from two to four years when they were operated upon. They were all in good condition, none of them having had cystitis, and none of them were septic. Each one had from three to five ounces residual urine. Perineal prostatectomy was done in each case.

Results of the operations: Three were cured of all urinary troubles within one month. The fourth was operated upon February 13, 1905, and has been troubled with enuresis to the present time, July 9, 1905, but is nearly well. This patient remained in the hospital three weeks and made a very favorable progress, nearly all of the urine passing through the natural channel. I dressed the case at his home twice the next, or fourth week, and advised him to come to the office for further dressings. He came once, but did not return. After two or three weeks I dropped him a note asking him to come in, as I wanted to know how he was getting along. On examination I found an abscess had formed, deep in the perineal wound. This I opened. It discharged an ounce of pus. This was treated and it promptly healed up, also the perineal fistula, but enuresis continued, as above stated. I believe the abscess was the

cause of the long-continued enuresis in this case.

The per cent of the cures within one month, and post-operative troubles lasting

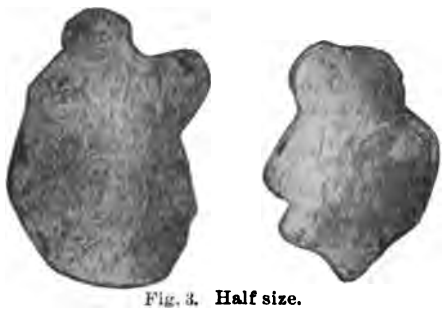

Fig. 3. Half size.

longer than a month in this group, based upon the thirty cases operated upon, is as follows:

Cures, ten per cent; enuresis, three and one-third per cent.

Taking up now the second general class, or that class of cases due to hypertrophy of the muscular and fibrous tissues, and subdividing this class, as we did the preceding, into the feeble, incapacitated, and partially incapacitated, we have, in this general class of six cases, one feeble, three incapacitated, and two partially incapacitated.

The only feeble one in this class was seventy-one years old; catheter life seven years constantly, and two years interruptedly; history of repeated attacks of cystitis; almost constant enuresis; septic condition of bladder marked; patient could only walk a few steps without resting; patient was put to bed, bladder constantly drained by means of residual catheter. Passing the catheter in this case caused great distress, and produced much irritation of the prostatic urethra, hence we used the residual catheter, which did not irritate or cause suffering. The bladder was washed three times daily with a solution of permanganate of potash. Water was given freely, also milk. This treatment was continued for seventeen days, when perineal prostatectomy was done. The gland shown in Figure 4 was taken from this case. Result: The patient made a good recovery, with the exception of a perineal fistula, which continued two months after the operation. The per cent of post-operative troubles, lasting longer than a month, based upon the thirty cases treated, is as follows:

Perineal fistulæ, three and one-third per cent.

Of the three incapacitated, of this general group, each had been leading catheter lives from three to five years. Their ages were, respectively, fifty-six, sixty-two, and sixty-seven years. Each had residual urine, from three to four ounces. Frequent catheterization characterized each case. Each gave a history of several attacks of cystitis, which had been temporarily relieved. None of them were septic when presented for operation. Perineal prostatectomy was done in each case, with the following result:

All recovered within one month, having perfect control of urinary apparatus. Per cent of cures within one month in this group, based upon the thirty cases treated, is as follows:

Cures, ten per cent.

Of the partially incapacitated group, in this general class of six cases, there were two cases. Each was sixty years old. Each gave a history of dysuria for several years, then complete stoppage of the urinary flow, following exposure to cold. Relief was gained by the use of the catheter. Interrupted catheter life followed for two and three years, respectively. During the periods of catheter life there was tenesmus, sometimes of the rectum, and often of the bladder. These patients were incapacitated during the periods of catheter life. There was three and four ounces residual urine, respectively. Perineal prostatectomy was done in each case, with the following results: Complete relief from all urinary troubles within one

Fig. 4. Half size.

month. Per cent of cases in this group cured, based upon the thirty cases treated:

Cured, six and two-thirds per cent.

Of the third general class, in which there is hypertrophy of the fibrous tissue alone, there were two cases. Making the subdivisions of this class, we have made of the other classes, into feeble, incapacitated, and partially incapacitated, these two cases belong to the incapacitated group: Their ages were, respectively, sixty-three and sixty-five years. Each gave a history of cystitis which had been relieved temporarily. Each had three ounces residual urine, and tenesmus of bladder and rectum much of the time, for which both were using opium suppositories. Micturition, painful and frequent in each case. Bladders were not septic when presented for operation. Perineal prostatectomy was done in each case, with the following results: Both cases were cured within one month. The per cent of cures in this group, based upon the thirty cases treated, is as follows:

Cured, six and two-thirds per cent.

Of these thirty cases, the following summing up is of interest. Twenty-two, or seventy-three and one-third per cent of these cases, belonged to the class of large, soft prostates. There were in this class one death, or three and one-third per cent, of the thirty cases treated. There were six cases of post-operative troubles, lasting more than one month, or twenty per cent of the thirty cases treated.

Six, or twenty per cent, of the thirty cases treated, belonged to the second general class, or to that class in which there is hypertrophy of the muscular and fibrous tissues. In this class there was one case, or three and one-third per cent of the thirty cases treated, that had post-operative troubles lasting more than one month.

Two cases, or six and two-thirds per cent, of the thirty cases treated, belonged to the third general class, in which the fibrous tissue alone hypertrophies. There were no post-operative troubles in this class.

These figures show that in these thirty cases there was not quite three times as many cases in the first general class, or group, of large, soft prostates, as were in the other two general classes, but that the per cent of mortality and post-operative troubles, lasting more than a month in this class, was seven times greater than in the other two classes combined.

These figures show that of these thirty cases operated upon, nine, or thirty per cent, of them belong to the feeble class, and that of these nine, one died, or three and one-third per cent of the thirty cases treated; and five, or sixteen and two-thirds per cent, of the thirty treated had post-operative troubles, lasting longer than one month, placing twenty per cent of the thirty treated, who died or had post-operative troubles, in the feeble class. In the other two classes of incapacitated, and partially incapacitated, there were twenty-one cases, or seventy per cent of the thirty cases treated, with no mortality and only two cases, or six and two-thirds per cent of the thirty cases treated, that had post-operative trouble lasting longer than a month.

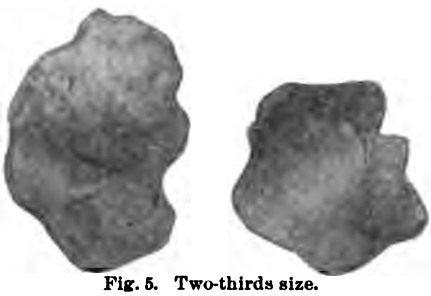

Fig. 5. Two-thirds size.

Another estimate with these figures gives us the following:

Of these thirty cases treated, there were nine feeble, one of whom died, or eleven and nine-tenths per cent. Five of the nine had post-operative troubles, lasting longer than a month, or fifty-five and five-ninths per cent. There were twenty-one cases in the other two classes of incapacitated and partially incapacitated. Two of them had post-operative troubles, or nine and one-half per cent. In other words, there were not quite half as many cases in the feeble class as there were in the other two classes combined, but the per cent of mortality and post-operative troubles, lasting longer than a month, is more than seven times greater in the feeble class than in the other two classes combined.

Of these thirty cases, two, or six and two-thirds per cent, had enuresis. Three, or ten per cent, had perineal fistula. One, or three and one-third per cent, had dysuria for more than one month after the operation.

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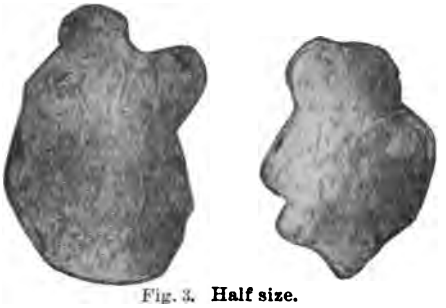

Fig. 3. Half size.

longer than a month in this group, based upon the thirty cases operated upon, is as follows:

Cures, ten per cent; enuresis, three and one-third per cent.

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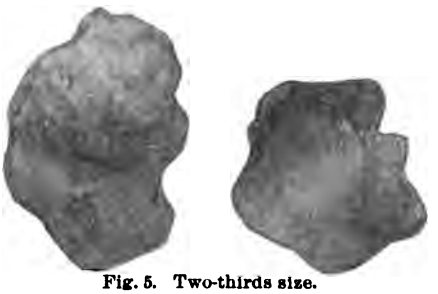

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Of these thirty cases, two, or six and two-thirds per cent, had enuresis. Three, or ten per cent, had perineal fistula. One, or three and one-third per cent, had dysuria for more than one month after the operation.

The final outcome of the thirty cases is as follows:

Died, three and one-third per cent; well within one month after the operation, seventy-three and one-third per cent; well within two months after the operation, ninety per cent; well within four months after the operation, ninety-three per cent; well within six months after the operation, ninety-six and two-thirds per cent.

The history of these thirty cases teach us several things:

First, that the hypertrophy of muscular tissue, together with over-cell growth, is the pathologic condition in a very great majority of troublesome hypertrophied prostates. That in this class we should expect the largest per cent of post-operative enuresis, for the reason that in this class the prostate is much larger and heavier, and produces the greatest amount of damage to the musculature and nerve supply of the bladder wall, prior to its removal, tending to prove that post-operative enuresis is due to damage done by the prostate during its diseased condition in the body, and not to damage done the tissues during the operation.

Second, that while the per cent of mortality and post-operative troubles are high, in the feeble class, they are not so high as to deter us. While the mortality of the feeble in this group of thirty cases shows a mortality of nearly twelve per cent (which we have, perhaps, wrongfully charged to the operation), there would have been one hundred per cent of mortality due to the disease without the operation.

Third, that if patients are to reap the best results, with the least possible risk, they must seek the operation before they reach the feeble class. Hence, the necessity of the family physician, who sees these cases first, advising the operation before catheter life is commenced; for after that it will not be accepted in most cases until it fails, at which time many of these will have entered the feeble class.

Fourth, that the per cent of cases in the third general class, or small prostates, due to hypertrophy of fibrous tissue, is very small. From this class we expect most post-operative troubles, due to traumatism and hemorrhage at the time of the operation.

4625 Greenwood Avenue.

[Written for the MEDICAL BRIEF.]

Asthma.

BY J. H. JERGESEN, M. D.

Milwaukee, Wis.

[No. III.]

Hay fever, or hay asthma, as it is often called, is purely a neurotic affection and the seat of trouble is strongly suspicioned to be in Meckel's ganglia; and probably, in some individuals, the olfactory are involved; for example, in such cases where the odor of roses and new-mown hay brings on an attack. I said that there is a strong suspicion that hay fever is caused through an irritation of Meckel's ganglion. This interesting organ, we know, lies in the spheno-maxillary fossa, at the outerside of the spheno-palatine foramen, and in front of the anterior end of the Vidian canal.

It may not be necessary to say any more about these nerves but for a few whose Gray or Morris occupies a place of prominence on the top shelf. Which reminds me of an old woman who was visited by her pastor. She answered his admonishment to study the Bible, that she had lost her spectacles five years ago and was too poor to buy new ones. When the pastor reached for the Bible it was covered by a half inch of dust and when it was opened, lo and behold, there he found her old glasses! For the benefit of such isolated cases we shall append our reflexion in connection with the formation, anatomy and distribution of the nerves connected with Meckel's ganglia, as being a probable factor in hay-fever.

The ganglion receives its motor fibers from the Vidian nerve, and its sensory fibers from the maxillary nerve. Its sympathetic root is the great, deep petrosal portion of the Vidian, also, while the motor root comes from the great superficial petrosal, which also is incorporated in the Vidian nerve, and has its origin in the geniculated ganglion of the seventh nerve. The sensory root, as stated, is a filament from the second branch of the fifth (maxillary). The sympathetic has its origin in the carotid plexus, it unites with the great superficial petrosal, being a branch of the seventh to form the Vi-

dian nerve. The seventh nerve, we know, gives a branch to the vagus, and the vagus, as we know, has its origin in, and is intimately connected with, the respiratory centers at the bottom of the fourth ventricle in the medulla oblongata.

St. John Brooks and Arthur Robinson hold that Meckel's ganglia, together with its four associates—cilliary, spheno-maxillary, otic, and sub-maxillary—are vagrants which have separated from the Gasserian ganglia at an early period of development, associated, as they are, with the fifth nerve. This may be so. Certain it is that all are more or less affected in hay-fever. The branches of Meckel's ganglia are ten or eleven in number, and supply the nasal cavity, the pharynx, soft and hard palates; it anastomoses with the olfactory nerves in the superior turbinate region, and with the nasal in the inferior turbinate region. Practically all of the parts supplied by the nerves given off from Meckel's ganglia are involved in an attack of hay-fever.

Reading about hay-fever, one invariably encounters such statements: Hay fever is caused by the pollen being inhaled. In what manner can pollen produce hay fever? asks another; now that the pollen is with us, hay fever is also, etc.

I, for my own part, do not see my way clear to implicate the pollen in the crime any more than I can the roses. Odor from fried pork, odor from new-mown hay, the glare of the mid-day sun, arc-light glare, change of air from hot to cold or reversed, cold night air after a warm, bright day; even an approaching thunder storm is, in many individuals, a certain factor. We know hay fever consists in a burning sensation in the mucous membranes of the nose, pharynx, fauces, hard and soft palate, and conjunctiva of the eyes. The outward symptoms are: Lachrymation, red and swollen eyes, coryza, and sneezing, sneezing and sneezing without end.

Every individual has his own idiosyncrasy as to which of the numerous causes will produce an attack in them. Hay fever, as all other neurotic conditions, are of a progressive nature, and may, if they are let alone, assume an enormous possibility.

I was called to see a patient suffering from hay fever for eighteen years. It was a bright summer day in August. I found him in the cellar, blowing his nose for all he was worth. I sprayed his nose with a two per cent cocaine solution and put a few drops in each eye. The paroxysm soon ceased, when he told the following story:

"I had my first attack when I was about eight or nine years old; I was attacked while playing in some new-mown hay. My first attack was a severe one, but it only lasted about half an hour, and it was the only attack I had that year. The following year I had many fits of the same kind. And every year since that I have suffered in the same degree, only one year is a little worse than the other. At the age of eighteen I had my first attack of spasmodic asthma, and now I must fight against hay fever in daytime so as not to suffer from asthma at night; then, as sure as I succumb to the day attack I will surely wake up with asthma in the night.

"Three or four weeks, generally the last week in July, and three first weeks in August are spent in sneezing and fighting sneezing from nine to ten in the morning until four or five in the afternoon. Does the sneezing once get the best of me then I am lost for the day and the night, also, for surely I will wake up in the night with asthma; but am I able to overcome the tendency to sneeze I may within an hour be able to give my attention to other things and have a good night's sleep the following night. The most prominent symptoms are itching; itching in the nose, itching in the throat, itching of the soft palate, of the hard palate, of the chin, down the spine—itching, itching everything. The sensations are, as before said, itching, but if not relieved by sneezing, coryza and lachrymation, the sensation is as if red pepper had come in contact with the membranes mentioned.

"To fight off an attack it is necessary to be on my guard from early morning, especially if it is a bright day. As soon as I feel the first tingle in my nose I get out my handkerchief and begin blowing my nose, while I am making for this dark room. Here in this dark room I sit with my eyes closed, pinching my nose and blowing all the while and with all my force; if I can continue this desperate blowing without interruption, in the

course of about fifteen to twenty minutes I often have overcome the strong tendency to sneeze. While I am exerting myself in the first fifteen or twenty minutes to avert the act of sneezing, I dare not inhale through my nose; therefore, I must keep my mouth wide open and the struggle goes on. If I lose I have lost much, I will sneeze nearly continuously until three or four o'clock in the afternoon, and in the night wake up with the asthma, which means three or four hours additional suffering. Under these first minutes I dare not let anything interrupt me. If I am interrupted I am lost; only if I cough or listen to something the next thing is a sneeze, and I am lost. Can I, however, thwart the first attack I am, as a rule, successful in all other attacks that day.

"As before said, the case is progressive, and from year to year I find the attacks become harder and last longer, and when ten years ago I counted on five to six weeks, now I count on eight and nine weeks."

Hysterical asthma, or nervous dyspnea, occurs mostly in women between the age of puberty and thirty, but I have seen a few cases in women at the menopause. The time of occurrence in fifty per cent, at least, is the first week after menstruation, and very often the last day of menstruation, but the remaining fifty per cent may come on at any time, and often during the month. It comes on suddenly, generally during waking hours, when in company; seldom when alone.

Fear, grief, jocundity, shock of some kind, may bring on an attack. Such an attack may last a few minutes only, or may last for hours, or even days. No pathological evidence of the existence of a disease can be discovered, neither while attacked, nor after. There seems to be no impediment to the air in the bronchiales, the rhonchial and sibulant sound, in spasmodic asthma are absent, and so are the gurgling sounds in catarrhal asthma. After one has examined a case for all probable and improbable causes and found none, one comes to the conclusion that the patient can breathe if she wanted to, but may be she can not. Often, I have thought, when I have witnessed an hysterical asthma patient struggle for breath, What would happen if she all at once should find herself deprived of air? Or unable to breathe? Such a patient is very unlike a patient suffering from other forms of asthma. She is subsultant in a high degree. She will scream: "Help, help! I am choking," etc. She will claw at her throat, throw herself on the floor, and often act in an unseemly manner; become boisterous and vicious, slap the faces of friends if she does not think they show concern enough for her welfare. At other times she may resign herself to her fate and she will become still, not move a muscle, and apparently not breathe for minutes at a time. This, however, generally brings forth a quick response from friends who look on: "Doctor, why don't you do something for her? She will die!" etc. My experience is, if you try to do something for her you and your successor will have a job your lifetime. If, however, you show little or no concern for her, make light of her condition, refrain from giving her disease a name, tell all in the room to depart because she should be disturbed as little as possible. Then, when you are quite alone, go up to her without saying a word and snap the lobule of her ear a smart crack (hard enough to hurt her). If she asks in surprise, "Why did you do that?" hit her another and another until she flinches. Her asthma, in all probability, has ceased by that time, and you pick up your hat and cane and join the others as soon as you can. If you have the confidence of the family, tell them: "If she should get into another fit of the same kind do not call for me, or tell anyone to leave her room and leave her strictly alone and do not disturb her. This procedure will help her more than any other thing you can do for her.

I have a case in mind now in an unmarried lady of thirty-five; short of stature and stout of build; of a nervous and often unreasonable temperament; health good, but for a heavy cold of recent date. She had her first fit in a doctor's office. She was brought to my office, thinking that it was spasmodic asthma. At her first visit she had a fit in my office. She squatted down on the floor, assuming a knee-chest position, clawing at her throat, pulling at her hair, screaming: "I can't breathe. I am dying. Help! help! I am

choking," etc. She had many subsequent fits in my office.

The last spell I witnessed her have ended in this manner: She was attacked in the usual way; her company (her aunt) had never seen her in a fit before, was loud in her sympathy for her, and insisted something should be done for her. I, on my side, was as sure that nothing should be done. That she would be relieved the quickest if we let her strictly alone. The old lady looked at me with scorn in her eyes, and asked: "For what purpose have we got doctors, then?" when luck came to my assistance. In an adjoining room I had piled up several dozen empty bottles, which at that moment fell down with a terrible crash. Her aunt and I ran to the room and forgot, in our excitement, our patient, who was suffering. When we looked around there she was, standing, terrified, inquiring what had happened.

735 Third Street.

[Written for the MEDICAL BRIEF.]

Tuberculosis.

BY J. W. LOCKHART, M. D.,
St. John, Wash.

The idea that tuberculosis is a contagious disease is no new thing. Dr. Watson asked the question more than fifty years ago, and answered it with an emphatic "No." But said, however, that the Italians were as afraid of one having consumption as of one having the plague.

Neither is the germ theory of tuberculosis a very new idea. Lænnec believed in it nearly one hundred years ago, as we learn from the following quotation from "Tweedies' Practical Medicine," published more than sixty years ago. "It may be collected from his (Lænnec's) writings that tubercles are parasitical bodies originating in an unknown way, possessing a life and structure of their own, growing by attracting matter to them, and tending by their own inherent properties to go through a certain series of changes."

With this cue to work from, and the modern improvements in the microscope, it does not seem that Koch's discovery of the bacillus tuberculosis was such a wonderful thing after all. A further quotation in regard to this theory of Lænnec, and the argument in refutation of it, may be of interest to some modern students of medicine: "The transparent miliary granulations of Bayle, the gray miliary tubercules, the gray diffused indurations, and a kind of gelatinous infiltration, he looked on as varieties of these bodies in their first stage, and all tending, *per se*, first to become opaque and yellow, or crude tubercule, which is still hard; and afterwards to soften into a cheesy or pasty liquid, which is the mature tubercule." The author says: "Now this view involves several assumptions little supported by analogy; for instance, that bodies so different in physical character and texture are the same; and that the stages through which they pass are produced by assumed inherent properties, and not by the modified properties of the tissues of the organ—and it further assumes what has been disproved by extended observation—that the opaque yellow tubercule is always preceded by the gray, or semi-transparent, and that the gray indurations must always in time become yellow tubercule."

It would seem from what we know of the pathology of low grade inflammations at the present day that the author had the best of the argument. There are yet some things in connection with the pathology of tubercular deposits which seem to produce (intellectual) blind staggers in the bacteriologists.

Modern writers on the subject of tuberculosis seem to attribute all the pathological conditions which take place in the lungs of consumptives to the presence of the bacillus tuberculosis, and that, too, with a superlative disregard of the fact that such changes actually do occur, in many instances, where no bacilli can be found. With an utter disregard for statistical facts, some writers assert that one death in seven in the United States is caused by consumption; while the truth is, that according to the United States census for 1900, a little less than one death in 9.5 is caused by this disease. Pneumonia ranks next to consumption in fatalities in this country; that disease causing one death in 9.8 of all the deaths.

It has been stated by competent authority that sunlight, heat and carbolic acid are the agents most destructive to the

germs of consumption. Allow me to suggest that it may be some particular ray of sunlight that is so destructive to these germs, and the man who discovers it may immortalize himself. And if carbolic acid is as destructive to these germs as it is said to be, why would not its persistent use by inhalation, and internally, or some of its derivatives, if the acid could not be administered, be a rational treatment for this disease? In some forms of bronchial catarrh I have seen great good accomplished by the inhalation of steam saturated with this acid, when other remedies seem to be of no avail. With me the internal use of salol, with the solution of the sulphocarbolate of zinc as a gargle, has accomplished all that is claimed for anti-toxin in diphtheria. I have reason to believe that carbolic acid, salol and the sulphocarbolates are not alone intestinal antiseptics, but that they exert a depurative influence over the whole system. I notice, however, that in the matter of treatment, the bacteriologists do not follow their theories to logical conclusions. Their suggestions in regard to treatment are but little, if any, improvement over those of a hundred years ago. And, in proof of this, let me quote again from one of the old writers: "But even in the cases in which the phthisical lesions are the most limited and merely nascent, we must never forget that it is not these lesions alone which we hope to remove. . Their very presence in the system, or the operation of the constitutional or local causes that produced them, may lead to the formation of more; and in our treatment of the local causes, we should ever endeavor to remove those low degrees of vascular irritation, or that unhealthy condition of the nutrient matter of the blood, which, singly or combined, occasions the deposit of tubercular indurations. But the constitutional treatment is also of the utmost moment; and in this we should seek for all the circumstances and agents that may best promote the due action and balance of all the functions. The purest air and the most suitable climate for regular and ample exercise in it; the most nutritious food that the digestive organs can assimilate, and that the vascular system can bear without excitement; and such remedial agents as give at once tone to the system, and promote the free action of all the secreting organs, together with friction, exercise, and proper clothing to maintain the activity of the superficial circulation—these are the means which are rationally indicated to fulfil the object of improvement of the general health.

"But these means must be varied to adapt them to the wants and capacities of individual cases, and it is in the study of these and in the power of adapting the means to them that the ability of the practitioner is seen."

Here, in my opinion, is the essence of the rational treatment of pulmonary tuberculosis, and I firmly believe that if physicians would pay proper attention to "removing those low degrees of irritation, or that unhealthy condition of the nutrient matter of the blood," which almost invariably follow colds, pneumonia, bronchitis, la grippe, and other catarrhal conditions of the lungs, there would, in a short time, not be one death from consumption where there is now ten. "A consummation devoutly to be wished." It seems to me that by a judicious course of after-treatment, in these cases, much more might be done than generally is done to "remove those low degrees of vascular irritation" that form a possible nidus for the germ or the deposition of tubercular matter. For this purpose some of the older authors recommend the use of some of the preparations of iodine; and I have noticed that in those cases in which it was prescribed in combination with other remedies, or during convalescence, the patients, generally, made a better and more complete recovery. Especially is this marked in those of scrofulous diathesis, who are peculiarly liable to low-grade inflammations.

The death rate from consumption varies slightly in the different States, and frequently we see the extremes of difference in localities in the same State. The rate is a little higher in the cities than in the rural districts, but varies greatly in the different wards of the same city. And this variation is an instructive study; disproving, beyond the shadow of a doubt, the generally accepted view that the death rate from this disease is much greater in the crowded tenement and slums than in

the better class of resident wards. The fact is, substantiated by the most reliable statistics, that not infrequently the very best resident wards, containing but little more than the palaces of the rich, show a larger death rate from this disease than do the most objectionable wards of the city. For illustration, we will take a prominent Eastern city, which need not be named here. The death rate from pulmonary tuberculosis for the entire city was one hundred and fifty-eight per one hundred thousand of population.

In Ward One, which was on very low and flat ground, in many places not more than three feet above the water, and which was a cheap tenement district, densely populated by Hungarians, Poles, Italians, negroes and prostitutes of the lowest kind, the death rate from consumption was one hundred and seventy-one, being only thirteen above the average for the entire city.

Ward Two, which was only a little better in physical and social conditions, had a rate from this disease of only one hundred and eight, or fifty below that for the city.

Ward Three, which was much better in physical conditions and but little better socially, containing many prostitutes, gas and coke works, breweries and malt houses, had a rate of ninety-nine per one hundred thousand of population.

About half the houses in Ward Four were occupied by the class of prostitutes known as "roomers." Here the rate from consumption was eighty-four.

For purposes of condensation let it be understood that the rates given are per one hundred thousand of population, and for consumption alone.

Ward Five was a cheap tenement district, occupied chiefly by a poor class of laborers. The rate was two hundred and fifty-one.

Ward Six was among the best residence wards of the city, occupied chiefly by the wealthy. The rate was eighty-nine.

Ward Seven was chiefly residential in character, occupied by a good class of people, in moderate circumstances. The rate was one hundred and fifty-four.

Ward Eight was a cheap tenement, occupied by a poor class of laborers. The rate was one hundred and forty-nine.

Ward Nine was a very similar district, and the rate was only sixty-two.

Ward Ten was similar in most respects, and the rate was two hundred and thirty-two.

Ward Eleven was residential, and occupied by a good class of people, in moderate circumstances. Here the rate was one hundred and sixty.

Ward Twelve was well built up, principally with the residences of wealthy people. The rate was two hundred and sixty-five.

Ward Thirteen was mostly occupied by residents of a good class, mostly owning their own homes. The rate was one hundred and ninety-three.

Ward Fourteen was on high ground and well built up with handsome residences. The rate was only ninety-four.

Ward Fifteen was residential and occupied by dwellings of the middle class. The rate was two hundred and seven.

Ward Eighteen was in the best residence section and on high ground. The rate was fifty-nine.

Ward Nineteen was similar in nearly all respects and the rate one hundred and sixty-two.

Ward Forty contained large stock yards and slaughter houses, which emptied their filth into an open creek that in part sewered the ward. The residents of this ward were principally a poor class of laborers, and the rate was only sixty-nine.

It is unnecessary to give the rate for all the wards in the city. The figures given are sufficient for comparison.

It will be noticed that Wards Nine and Forty, which of all the wards in the city, according to prevailing ideas, were most favorable to the production of pulmonary tuberculosis, show a death rate of only one-fourth that of Ward Twelve, where the rate should have been reduced to a minimum if the prevailing dictum is correct. This is the most striking example, but a careful study of the other figures given, lends no support to the assertions so often made, that the large death rate from consumption in our large cities is due to over-crowding of the tenement and slums districts. Only one ward of the entire best residence portion of the city compares favorably, in this matter, with the vilest and most filth-polluted wards.

What is here proved to be true of this particular city is also true, to a greater or lesser extent, of other cities and other diseases. Here, then, is a hard nut for the bacteriologists and pure food commissions to crack. Perhaps some of our officious State boards of health (?) would like to crack it for them.

[Written for the MEDICAL BRIEF.]

Inspection of Beef By Microscope.

BY EPHRAIM CUTTER, M. D.,
New York City, N. Y.

(1) 1905, Feb. 11. Collector, Deacon George W. Fowle, Jamaica Plain, Mass. Claim, good, sound healthy beef. Test, color pale, white as a sheet. Cross marks half obliterated. Finely granulated fat inside of fibers, but not excessive. Fat looking like butter abundant outside. Not up to standard. Should be red. Crossmarks perfect. No fat inside. No buttery nor ameboid oil outside.

(2) 1905, April 19, New York City. Collectors, Mrs. and Miss Penfield. Beef from their butcher. Pale; cross marks good; considerable fat in oval forms; abundant oil globules; substance of fibers finely granular.

(3) Same date. Chopped beef, collected by Mrs. and Miss Penfield. Pale; oily like butter; substance finely granular with fat; no cross marks; longitudinal markings—striæ, plain. Not so good as (2), as might be expected, naturally.

(4) Veal. Collected by Mrs. and Miss Penfield. Very pale and bleached; no cross marks; striæ faint; fibers finely granular with minute masses of fat.

(5) Same. Pork. Very pale; no cross marks; striæ present; oil.

(6) Mutton. Same. Pale transparent; not much fat nor oil globules.

Note. 5 and 6 are introduced here as they were examined with 2 and 3. Six was a surprise, as many oil globules are generally found and make mutton secondary to good beef as a food for treatment of disease.

(7) 1905, April 27. Mrs. Grouten's beef that she feeds me on. Pale, but perhaps with more color than the average; cross marks not all present as they should be; some striæ; buttery fat; granular fat outside and inside of the fibers.

(8) 1905, April 27. Specimen from Prof. B. Cutter, Boston, Mass. Color, slight red; no cross marks present; oil in interspaces between fibers; fibers somewhat granular inside; much better than the average Boston beef, but by no means a normal specimen.

(9) 1905, April 25. Specimen from Mrs. Blank, of Philadelphia, Pa. Claim: first-class beef killed in Philadelphia; color pale; plenty of oil like butter; cross marks faint; few granules of fat inside the fibers. April 27, 1905, second examination of the same specimen; some oil; some granular fat; cross marks fair. This was not kept on ice. It came from cold storage. But it did not meet the standard as expected.

(10) April 26, 1905. Beef from the Bronx, Mrs. C. C. Merritt, collector. Color pale; cross marks faint, as a rule; buttery oil plenty; free oil globules outside of fibers, that were finely granular inside. This was hamburger and examined before eating.

(11) May 1, 1905. Another specimen from the Philadelphia noble woman. Beef declared to be kitchen meat of standard goodness, fresh killed at Philadelphia. Color very fair; cross marks plain; granular fat everywhere present inside the fibers; no striæ; fair specimen.

(12) May 5, 1905. Beef from E. Q. Norton, Daphne, Ala. Color more red than the average; cross marks large and plain; little free oil; some granules of fat in fibers. Came in fine condition through the mail. Good. This was a pleasant surprise.

(13) May, 1905. Beef from C. M. Bliss, A. M., Bennington, Vt. Color pale; cross marks plain; some free oil, not excessive; no granular fat in fibers.

(14) May 4, 1905. Specimen from Mrs. Penfield, New York City. Color pale; cross fibers; oil in globules and buttery shapes; granular fat.

(15) May 5, 1905. Truant School, Brooklyn. Color pale; striæ and cross marks; buttery oil, but not abundant.

(16) Same as (15), another sample. Color, paler red; cross marks present; oil globules abundant; granular fat inside fibers.

(17) May 6, 1905. From Mrs. P. W. Pierce, Harwichport, Mass. Color pale as white paper; striæ marked; cross fiber marks plain; some buttery fat but not as much as usual; granular internal fat slight.

(18) May 10, 1905. Country beef from Mrs. Cyrus Coe, Middlefield, Conn. Color very pale; no cross marks; infinitesimal granules in fibers; not much free oil.

(19) May 12, 1905. From Miss Sarah Veghte, Somerville, N. J. Color pale; striæ marked; some cross fibers; some buttery oils; fine granular matter in fibers.

(20) May 18, 1905. Miss Veghte, New Jersey. Beef, fresh killed. Color very pale fibers; few cross marks; some striæ; buttery fat abundant.

(21) May 18, 1905. Mrs. H. L. Levy. Rabbi or kosher beef. Color better; cross marks distinct; some striæ; slight oil; no granular fat inside fibers. Should say this was much better than the average beef.

(22) May 18, 1905. Beef from H. Sprudle, Superintendent Truant School, Brooklyn. Color paler than it ought to be; cross marks all very fine; striæ marked; generally an absence of buttery fat; no granules. Good beef.

(23) May 18, 1905. Another specimen from Mr. Sprudle. Storage beef. Color distinct but not fully red; little fat of both kinds; cross fibers marked.

(24) May 18, 1905. Another specimen from Mr. Sprudle. Tenderloin beef cooked rare and taken from the dining table. Color good; all fibers cross marked; little or no fat nor oil. This is the nearest to the standard yet found by me.

(25) May 18, 1905. Specimen of beef from the cuisine of a patient of Dr. R. L. Watkins, of New York. Color pale; some cross marks, not many; striæ; oils globular ameboid buttery granular. Typical specimen of fat beef.

(26) May 27, 1905. Mr. H. Sprudle. Kosher beef, fresh killed in Brooklyn. Good color with one inch objective, but was thought not quite up to the standard; cross marks distinct; some striæ; not much oil; fine granular fat in fibers.

(27) June 6, 1905. Beef from Och's, 90th and Park Avenue. With one inch objective; color reddish; little oil; cross marks distinct; with one-quarter inch objective; some oil and buttery fat; granules abundant; cross marks clear.

(28) June 8, 1905. Och's beef. Hamburg steaks. Color under cover pale red; outside cover on the slide quite red; some cross marks and striæ; fat in ovals; ameboid oils; granular fat in fibers.

(29) June 9, 1905. Och's beef. Hamburg steaks. Some fibers pale and some red; some cross marked fibers; some striæ; most fibers finely granular; buttery oils.

(30) June 8, 1905. Beef from Siegel & Cooper Department Store. Color palish; cross marked; striæ; little oil; some granular fat. Triple phosphate crystal, such as is found in urine; mycelial filament of yeast very white and pale, probably foreign.

(31) Another sample beef from Siegel & Cooper Department Store. Color pale; cross marks and striæ present; no oil globules.

(33) June 17, 1905. Och's beef. Color pale; cross marks present; little oil or fat in granular form.

Note.—This beef removed the albuminuria of a patient of mine when eaten.

(34) June 17, 1905. Porterhouse steak from a patient of Dr. R. L. Watkins, New York. Muscular fibers, some pale and some reddish; cross marks present; one-half of the field under the microscope was filled with oil in globes, globules, granules; also ameboid and buttery.

(35) June 17, 1905. Best beef in Rutherford, N. J. Politeness of Dr. Armstrong. Color pale; some cross marks; striæ; not much free oil; some granular fat inside fibers.

(36) June 24, 1905. Beef from Mrs. E. B. Grannis. Claimed to be perfect. Color pale; cross marks not always present; some striæ; field full of granular fat; ameboid oil globules present.

(37) June 22, 1905. Joseph Stern & Co. by the politeness of Dr. Darlington, President New York City Board of Health. Chicago stock killed here. Specimen only a short time in the iced storehouse. Color fair; cross marks abundant; some striæ; not much oil on fibers, though some of them were ameboid; granular fat inside fibers none. This firm deserves help.

(38) June 24, 1905. Examined after keeping away from the cold storage. Color pale; striæ somewhat in evidence; cross marks less numerous; globar oil large and small, abundant; granular fat everywhere present inside fibers.

Note.—This goes to show that beef decomposes by fatty degeneration. The smell of this specimen was not bad, while the odor of some control beef kept in the open for two days by the side of (38) was almost unbearable.

(39) Beef from Dr. Jordan, Boston Board of Health, kindly sent in reseponse to a request for a sample to photograph as typical of good sound, wholesome beef. Examined June 27, 1905, at once upon receipt. Color pale; few cross marks; some striæ present; some granular fat in the fibers; some oil globules, not many; ameboid forms plenty on the cover glass. Later examination: Color pale; striæ more abundant; granular fat everywhere inside the fibers; oil globules abundant but far less than in the average sample. Thanks rendered to these officials for their aid.

(40) July 4, 1905. Beef from Plymouth, Massachusetts, per B. Cutter. Hot weather. Color good; cross marks generally present; no striæ; some free oil globules, none amebic; none granular; sample stank; a good specimen considering the environment.

(41) July 9, 1905. Received by mail from Alexandria, Minnesota, through the politeness of Mrs. F. B. Van Hoesen beef mailed on the sixth instant. Came in good order, though slightly tainted. Color to the naked eye grayish red and slightly glazed. Color under the microscope reddish pale; cross marks good; striæ none; no granular fat inside the fibers; hardly any oil globules. Considering the distance sent and the season of the year, this is a remarkable showing. Again it proves that a deep scarlet red color of the meat to the naked eye is not a sign of the tissues being free from fatty degeneration. This the writer has found out many times to his sorrow in his own kitchen and on his own table.

(42) July 12, 1905. U. S. army purveyor beef. Politeness of Mr. J. L. Jordan. Claim to be perfect in quality. Color pale; oil in globules very abundant; oil in granules inside the fibers very abundant; cross marks mostly absent; striæ abundant.

(43) July 7, 1905. Another sample like (42). Color to the naked eye grayish red; under the microscope the best red the observer has seen for years; cross marks universal; striæ few; few oil globules; no granular fat; smell good. Observation made at ten A. M. At one P. M. the same day, the sample having been kept away from storage, very fine fat granules were found pervading the fibers; the other appearances being held.

(44) July 19, 1905. Beef from West Falmouth, Mass. Said to be embalmed. From Mrs. Anna L. Cutter. Color fair and pale; cross marks general; some striæ; no granular fat in fibers; some globules of oil.

(45) July 22, 1905. Politeness of Mrs. F. B. Van Hoesen, from Alexandria, Minn., grass fed and only four days in the cold storage. Color fair; cross marks few; striæ present; oil in globules; not much fat in granules inside fibers; many crystals of triple phosphate; fibers fused together, some of them evidently doctored; not much smell of decomposition; not so good as (41).

(46) July 29, 1905. Another specimen from Mrs. Van Hoesen. Color to the eye grayish red; under microscope fair; cross marks plain; some striæ; hardly any oil or fat in globules or granules. A good specimen.

(47) August 3, 1905. Beef from Faneuil Hall Market, Boston. Politeness of Mr. S. Dustin Goodenough. Color palish red; cross marks few; striæ more abundant; oil in globules and buttery shapes; all fibers finely granular with minute particles of fat.

(48) Another specimen same kind as (45). Color medium pale; cross marks plain; few striæ; some granular fat in the fibers.

(49) In this number are lumped examinations made for several years past, all of which may be summed up as undergoing fatty degeneration. Since the beef business has been amalgamated under one head, or partially under one head, microscopical examinations show that it is difficult to obtain the hale beef of previous date, whose fibers were a decided

red; not undergoing the granulated condition such as the writer has found in the substance of cataracterous lenses. There was little or no oil free upon the fibers. This latter beef American physicians have found useful to help cure heart, lung, kidney and nerve diseases, and some have found themselves unable to do the good they think they ought to do by using the diseased beef of the present shambles. These studies were for the purpose of securing the beef of the right quality. They must be taken as such. If any doubt, all that they can do is to go over the same ground and see if the reports are incorrect. The Lord knows that the writer wishes they were and that normal beef could be found in the shambles as it formerly was found.

(50) Date forgotten. Mr. F. A. Dunham, of Brockton, Mass., said that his butcher furnished good, sound, wholesome, healthy beef. This he was assured of by the butcher himself, who was a man to be trusted, as he was a man of his word. Knowing the informant to be entirely trustworthy, the writer gladly availed himself of this opportunity to obtain a normal specimen for study and use; he arranged to have a four-pound roast sent from the said butcher. When it came it looked all right to the naked eye, but the microscope showed it to be of the color of butter; to have no cross marks; no striæ even; nothing but a fatty mass that had every appearance of common butter, so completely had the process of fatty degeneration gone on. When the writer and the butcher met, he would not yield an atom from his position, and he died holding fast to the same contention, that it was good, sound, wholesome beef.

Flat Iron Building.

[Written for the MEDICAL BRIEF.]

Cerebro-Spinal Meningitis.

BY WM. PROTZMAN, M. D.,

Lincoln, Neb.

In the discussion of this subject I shall not pretend to substitute mental suggestion for remedial measures, nor that I am possessed with a cogitative mind; neither do I want to be capricious, inexorable, nor paradoxical. All I ask of my professional critics is to go with me into the physio-pathological field for a retrospective view of the fundamental principles of scientific medicine. Cerebro-spinal meningitis, or spotted fever, has caused much anxiety in the medical profession during the past three or four months, on account of the great mortality and diversified treatment. I have been waiting with indefatigable patience for some member of the BRIEF family that is much better qualified than I to discuss this disease and treatment from a scientific standpoint, but in vain. On account of time and valuable space in the BRIEF, I shall not attempt to give symptoms, diagnosis, nor prognosis, but confine myself to the physio-pathological conditions according to *post-mortem* appearances under the lens of the microscope. According to chemico-physio-pathological investigations, all acute inflammations involve the same physiological laws of nature, that differ only in degree, which depends on the locality and nature of the tissue, more than on the etiology. The premonitory symptoms are as follows, viz.: first, congestion of the meninges, cord and brain; second, effusion, adhesion, extravasation, inflammation, and suppuration; the same conditions that are found in any and all acute inflammations. The etiology of this disease is claimed by bacteriologists to be caused from a pathogenic microbe; but whether it is caused from a pathogenic germ, or any other cause; whether located in the inflamed tissue or remote part of the body, either of which involves the same dynamic force and physiological laws of Nature, found in any acute inflammation.

Now, then, that we may understand the true condition of any acute inflammation, we must go back to physiological anatomy. According to anatomy every artery has three coats, viz., middle, internal, and external. The middle or muscular coat is spiral, very elastic, and governs the flow of blood into its capillary vessels and, according to physiology, every artery of the human body is controlled by the factor of irritability, governed by the vasomotor nerve; therefore, when the irritable factor of an artery is unduly excited, it causes constriction of the artery, and a

corresponding dilatation of its capillaries, causing congestion of the capillary vessels, and the first stage of inflammation. The factor of irritability is not only confined to the arterial system, but we find it in every muscular and nerve fiber, in every atom and molecule; the life of each depends upon the factor of irritability. The high and low pressure of an artery and its capillaries is exemplified in the secretion of urine; when the renal artery is constricted and its capillaries are dilated, which cause a normal flow of urine, but when the constriction and dilatation of the renal artery and its capillaries are reversed we have suppression of urine. Also, the application of cold relieves capillary congestion on the same physiological principle. In cerebro-spinal meningitis we find both heart and arteries intensified, forcing an undue amount of blood into the capillary vessels of the brain, meninges and cord, preventing a free circulation of oxygenated blood, and forming a compound known as carbon dioxide, a nutritive soil for pathogenic microbes, toxines, and ptomaines. Neither pathogenic microbes, toxines, nor ptomaines can exist in nascent oxygen or the free circulation of oxygenated blood.

Now, then, before entering upon the treatment of this disease, allow me to repeat with emphasis that every muscular or nerve fiber, every strand of protoplasm, health, disease and death of every tissue depend upon the factor of iritability, and that excessive or deficient liberation of the irritable factor lays the foundation for pathological tissue changes. Neither should we forget that oxygen of the blood is not only the graveyard for pathogenic microbes, toxines and ptomaines, but is one of the most essential elements for tissue metamorphosis, and to keep the blood in a fluid state.

Treatment.—Judging from the different kinds of treatment recommended, it forces us to conclude that there must be different kinds of this disease, or else we are using "shotgun remedies." One writer will tell us never to give physic, another will tell us never to give opium nor quinine. Another gives us this or that; hardly two that will recommend the same remedy. At last the New York Medical Department of Health has solved this great secret; they advise the lumbar puncture, etc. Now then, it does appear to me that the lumbar puncture is neither diagnostic, nor curative; the puncture may relieve the cord and intercranial pressure; if so, for a short time only. If the lumbar puncture would evacuate the effused product of inflammation without disturbing the cerebro-spinal fluid that is so essential to the cerebro-spinal nerves, cord and brain, or if the puncture would relieve the irritable artery that keeps up the congestion and inflammatory condition of the cord and brain, I could readily recommend the lumbar puncture.

A retrospective view of the different theories and treatment, therefore, is positive proof that the physio-pathological and therapeutic action of remedies are not well understood.

Now then, while I am giving my views and experience on the treatment of this disease, I hear a voice exclaiming, "Holy horrors, back number, old style, behind the times, relegate him to the rear, not fit to practice medicine," etc. For what? Because I recommend bleeding. Yes, I repeat with emphasis, *bleed.* Yet I do not advise venesection for every pain or ache, like the up-to-date doctor that plunges the knife into the abdominal cavity irrespective of pathological conditions, simply for the fee. Another contributing factor for the cure of this disease is calomel in five or ten-grain doses, with sulphate of magnesia to establish free catharsis; also, five-grain doses of iodide of potassium every four or five hours, with pounded ice to the head. Some preparation of opium, moist heat to the wrists and feet, sponging the body with hot water every couple of hours. But here is another voice exclaiming, "Take him out, he is crazy; put him in the asylum for advising calomel."

Now, gentlemen, before taking me to the asylum or drowning me in a duck pond, allow me to place myself on the witness stand, ready for your interrogatories. Question number one. Why do I recommend venesection? Answer. To reduce the excited condition of the heart and arteries that supply the congested tissue, as well as the muscular fiber of the

rigid muscles, to attract the circulation to the bleeding arm; to equalize the circulation that destroys the carbon dioxide, pathogenic microbes, toxines, and ptomaines. Question number two. Why do I recommend calomel? Answer. To awaken the dormant functions of the liver, for the antiseptic properties of bile, to stimulate the glandular system, for its own antiseptic properties, and to equalize the circulation. Question number three. Why do I advise large and repeated doses of iodide of potassium? Answer. For its alterative effects on the glandular system, for its own antiseptic properties and absorbing function of effused fluid. I apply ice to the head for the patient's comfort, to abstract the heat, to constrict the capillary vessels, to relax the irritable factor of the arteries, promote free circulation of oxygenated blood, and to encourage physiological metamorphosis of tissue. I sponge the body to invite capillary circulation and relieve constricted arteries. I prescribe opium to keep the nervous system quiet and to relax the irritable factor of the muscular fibers.

Now then, if my physio-pathological theory is a back number that has passed its day of usefulness, etc., I will ask my sagacious critic how anti-toxine cures pathogenic diseases; or how does the lumbar puncture cure cerebro-spinal meningitis, or how any of your new theories and remedies cure disease, if I am wrong.

Years ago when I was practicing medicine in Southern Ohio we had an epidemic of this spotted fever that proved very fatal. My first case was a young man about twenty-five years old. I found him with all the characteristic symptoms of the disease. My treatment was in accordance with our text-books and medical journals, but my patient died the third day after my first visit. Three days later a brother of his, about twenty years old, was taken sick in the same way. Did I treat him in the same way? Oh, no; I opened a vein in each arm; I bled him about a quart, and in less than a minute every muscle of his back and extremities were thoroughly relaxed. I followed the bleeding with large doses of calomel and sulphate of magnesia, which acted thoroughly before morning. I also gave him five-grain doses of iodide of potassium every three hours, with cold cloths to the head and neck, and thorough sponging with hot water. I also gave him small doses of opium. On my return the next morning I found him much better, neither pain nor rigidity of muscles had returned, and he made a successful recovery in about ten days, after which I treated five or six cases on the same principle and all recovered.

And now, in conclusion, I do not wish it to be understood that I am opposed to any new theory, as I am enthusiastic on the advancement of medical science, more especially on bacteriology, yet I am convinced from daily observation and experience that (more especially our younger members) we are chasing the little bacteria, or vegetable fungi, into space of an ethereal medium to get a glimpse of its morphological shadow, neglecting and relegating to the rear some of the most veritable, indefatigable, and fundamental principles of scientific medicine. But to be fashionable and up to date, as we hate to be called an "old fogy or back number," we adopt or use all the new remedies, irrespective of pathological conditions. And, as I have already stated, judging from what I can see almost every day, our noble profession is drifting into empiricism more and more every year; lucubrative hours of study are made unnecessary, physiology and pathology are placed in the same category with bleeding, cups, blisters and calomel, and all the up-to-date doctor will have to do to get a lucrative practice will be to commit big medical words, that common people do not understand, to have a fine office, an X-ray machine, and a big supply of surgical instruments; to wear a plug hat, to advertise extensively, and ride in an automobile, and he will make the "old fogy" doctor "git," (?) with a shovel or spade on his back, looking for a job to support himself and family, or starve (?).

The BRIEF is a practical, up-to-date journal full of meat, and certainly the best thing the country doctor can get for one dollar.—J. S. BALDWIN, M. D., Freeland, Md.

[Written for the MEDICAL BRIEF.]

Effect of Lenses Upon the Oculo-Motor Centers.

BY DAVID KLETZKY, OPH. D.,
Pueblo, Colo.

Lenses have been in use for the improvement of vision since the thirteenth century, but it is within comparatively recent times that their field of usefulness has been extended to wider limits. I say wider limits, because formerly lenses were looked upon as a means of bettering vision only, but modern ophthalmological research and experience, while bringing about great changes in this direction, have also revealed the undisputable fact that lenses exercise a great influence upon the oculo-motor centers. In consequence of this, a lens-therapy came into existence, which, if properly applied, does not only tend to rectify abnormal ocular functions, but with it the amelioration of many reflex nervous disturbances, remote from the eye, is brought about.

Had the eye been a fixed optic system, the problems connected with its deficient refraction would have been very easy of solution. But as it is, a pair of normally functioning eyes have the power, with the aid of fourteen muscles (two ciliary and twelve recti), to vary their dioptric and rotary action, as in the act of accommodation and convergence, and at the same time maintain a state of parallelism of the visual axes with far greater accuracy than is required of any organ of the system.

The principle, and, we might say, the only factor which influences ocular sensation and ocular dynamic action, is light. But this subtle fluid, in order to satisfy the sensory centers of visual perception, must not only enter the eye and focus properly upon the most sensitive part (the macula lutia of the retina), but also, when entering the two eyes, according to the law governing binocular vision, must impinge upon the same identical spots of the two retinæ in order to produce a single visual impression.

The reader can thus readily understand that the function of a pair of eyes depends greatly upon the behavior of light entering within their chambers. Any deficiency in refraction or abnormal muscular enervation tends to so disarrange the rays of light within the eye, that clear and accurate visual impressions are no longer possible without subnormal muscular contraction. It is here that lenses exercise a great influence over the rays of light entering the eye, and thus direct the proper impingement of images upon the necessary physiological positions of the two retinæ. They not only accomplish this, but, at the same time, cause a relaxation, or depression of undue muscular contraction—thus acting as oculo-motor depressants.

In fact, the various lenses used for the refraction of the eye can be classified as oculo-motor depressants and excitants. Thus, plus or convex lenses, besides converging rays of light, tend also to relax muscular over-action—as in latent hyperopia with excessive convergence; hence, we can class them as oculo-motor depressants. Minus or concave lenses, besides diverging rays of light, have a tendency to excite muscular action, and while they are seldom knowingly prescribed to be worn constantly for that purpose, nevertheless they are useful as oculo-motor excitants for diagnostic purposes—such as exciting action of the ciliary muscle, and thus measuring the accommodation of the eye; hence, they can be classed as oculo-motor excitants. Prismatic glasses have the qualities of the two, *i. e.*, they act as excitants and as depressants, depending much upon their position before the eye and upon the mode of their application. When the base of the prism is placed in a direction against the rotation of a heterophoric eye, the prism acts as a depressant. When it is placed in the direction of the rotation of the same eye, the prism acts as excitant.

In summing up the effects of lenses upon the oculo-motor centers, we find that while they have a definite physical action upon light, they also have a primary psychological effect upon the visual centers, *i. e.*, the mind becomes cognizant of the changes of the retinal image the lenses at first produce, and, as a result of these changes, a secondary physiological function is immediately established;

this is brought about (according to the kind of lenses used) by relaxation or contraction of the sphincter irides and the ciliary muscles, and also of the extrinsic muscles of the eye.

Thus the thoughtful reader must be impressed with the fact that lenses, in the hands of the well-educated ocular refractionist, are as much of an armamentarium as the "medicine case" is in the hands of the physician.

[Written for the MEDICAL BRIEF.]

Alcohol in Medicine.

BY W. C. COOPER, M. D.,
Cleves, Ohio.

In my late work, "Preventive Medicine" —still in the hands of the printers—I have taken a strong position against the use of stimulants, either in health or sickness. This will bring down on me an overwhelming wave of unfriendly criticism from the straightly classical therapeutists, because of its bold heterodoxy. On the other hand, it will call out the plaudits of all *temperate* lovers and defenders of temperance. I use the qualifying adjective, "temperate," in the foregoing, because there is a considerable class of *intemperate* temperance people. A certain proportion of people born into the world are idiosyncratically extremists. They can not step a foot without stepping a yard. The *ungoverned* momentum generated in stepping the foot carries them into an extreme. An extreme is necessarily antithetically related to sober sanity. Extremes always represent dead points, such as the limits of a pendulum's arc. These dead points are merely recoil epochs and are essentially self-annulling, so far as positive significance is concerned. It is exactly as unfortunate to be an extremist as it is to be an ultra-conservatist. The golden mean is the pivot on which the world turns.

These thoughts have been suggested by the more or less frequent appearance, lately, of articles in which a decided stand is taken against fluid medicines because of the alcohol contained in them! The zeal of some of these extremists has driven them to the monstrous assertion that a dose of a tincture may contain as much alcohol as is held in a glass of beer. Now, let us reason a little. I have never chemically tested beer with reference to its alcohol, but there is a practical and very impressive way of getting at it. Give any one not accustomed to stimulants a glass of beer and it will make him or her a *little* boozy. At another time give the same person two teaspoonfuls of brandy, or whisky, and it will affect him or her not more (generally less) than the beer did. I know what I am talking about, for I have instituted this test on myself and others many times. Try it fairly and you will see my statement verified. I infer that a glass of beer contains at least as much of the intoxicating principle as is contained in two drachms of brandy or whisky. In this connection it is proper to say to beer champions that the salicylic acid and other deleterious substances contained in beer are more baneful than its alcohol.

There is advertised certain makes of "bitters," in the large dose of which (a tablespoonful) there may be two drachms of alcohol. They are drunkard-makers, and can not be too severely condemned. No legitimate physician ever recommends them to his patients. They are sold by their proprietors directly to the laity.

There are few official tinctures the maximum dose of which is more than ten drops. In all fluid medicines the alcohol is reduced to merely the extracting and preserving point. One reason for this is because the preparation is given for the sake of the drug (not the alcohol) it contains; another reason depends on commercial prudence. It is conjecturally safe to divide by two if you want to get the amount of alcohol contained in a given quantity of the usual tincture or fluid extract. It will be seen that you would have to give a patient at least twenty doses of the official tinctures in order to get into him the amount of alcohol contained in a glass of beer.

But most modern physicians use the concentrated fluid medicines, such as Lloyd's specific medicines. Merrill's normal tinctures, or the fluid extracts of responsible manufacturers. Of many of these medicines the patient gets only the fraction of a drop at a dose, and only oc-

casionally more than three to ten drops. Our homeopathic friends give in still smaller quantities. It is perfectly conservative to say that the *average* dose of fluid medicine does not contain more than five drops of alcohol. The usual patient, therefore, must take twenty-four doses of medicine in order to get his glass of beer from his doctor.

There is a class of very excellent remedies—some of them proprietary—the dose of which is a teaspoonful. At the most, a teaspoonful of these does not contain more than twenty drops of absolute alcohol. If a less quantity will preserve the drug, be assured a less quantity will be used. A patient would have to take at least six doses of any of these to get his glass of beer. It is very rare that a patient is given more than three doses a day of any of these preparations, so that he would occupy two days in consuming his glass of beer. That is pretty moderate drinking, even if he took the straight beer, instead of getting it through a disagreeable circumlocution.

None but drug nihilists can champion non-alcoholism in the preservation of drugs. They practically hold that the minute quantity of alcohol the patient gets with his medicine infallibly does more harm than the drug does good. It is true that there is a class of drugs from which the isolated active principle can be reduced in powder form, but it is the opinion of a large proportion of practical physicians that this isolating process sacrifices very important associated elements. At any rate the profession is not going to drop the galenicals for the trivial reason that the patient gets with them the ghost of a hint of alcohol. If there is *any* promiseful reality in the use of drugs, it offsets a thousand fold any possibility of harm that may inhere in the alcohol fact, as connected with them. You get as much alcohol in the bread you eat at a meal as is contained in the usual dose of a tincture medicine.

I think the medical profession can be safely trusted for both its intelligent and its conscientious interest in the physical and moral weal of humanity. It represents the concentrated sanitary and salubrious wisdom and efficiency of all the ages, and by virtue of its humane and philanthropic relationships, it is the peculiar friend of the race. Its perpetual study is the physical, and consequently the moral, betterment of human conditions. Let us lean on the intellectual sufficiency, the moral inflexibility, and the all-involving kindliness of this oldest and noblest of the professions.

[Written for the MEDICAL BRIEF.]

Importance of a Thorough Examination of the Throat in Diseases of Children.

BY C. DEARBORN WARREN, M. D.,
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The startling prevalence of the affections of the nasopharynx as adenoids and tonsillitis, and the grave conditions which are caused by postponement of treatment, is a sufficient apology for the introduction of so time-worn a subject.

Chronic naso-pharngeal obstruction is found in about three per cent of children. Although the specialists have sufficiently elucidated this important condition a great many practitioners fail to give it the attention that it deserves.

The object of this paper is not to elaborate new features of diagnosis or innovation of treatment, but to call especial attention to the well-known facts. All children, regardless of the symptoms or presence of a disease, should receive a thorough examination of their throat; digital, if swollen larger over the rhinoscope, is preferable.

Enlarged tonsils may be seen by inspection, but there may not be much enlargement of the tonsils and fail to observe anything abnormal when the pharynx is blocked. By digital examination it can be felt as flat, round and sometimes resembles grape-like papilloma. The family must be warned of the condition that follows and unless this is done they realize that the child will be deformed and stupid, they will readily give their consent to their removal.

The dangers of the operation are very small. To temporize is useless.

[Written for the MEDICAL BRIEF.]

A Discussion of the Most Leading Questions Which Confront the Human Mind.

BY G. H. MORGAN, M. D.,
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What is organic life?

Organic life is the result of a physiological association of the specific chemical constituents in an organism.

When did life originate?

All life originated in the beginning of creation, and will continue in an organism as a result of a union of elements, but when dissoluted must return to the fount from which it came.

What constitutes an individual?

A union and agreed association of those specific chemical constituents associated with the spirit man, originate consciousness and consciousness ripens up to responsibility, and thus forms the individual, or a perfect unit of being.

What is the prime cause of the heart's action?

The prime cause of the heart's action are due to the stimulus found in the constituents of the blood, which exerts an influence upon the internal sensorial nervous cardiac region, and thus produces the systole, or first sound of heart. The diastole, or second sound of the heart, is but a rest or a period of repair. The molecule stimulus of the blood produces that regular equilibrium and perpetual action of the heart, and is no less phenomenon than is demonstrated in the untold millions of worlds floating out in space.

What relation do we sustain to the earth?

We sustain the same relation to the earth that a child sustains to its parents. Every molecule of the body is of the earth and truly belongs to the earth, and must return to the earth.

What would result if our relation with the earth were severed?

If our relation with the earth were severed, the required stimulus of the blood would be wanting, hence the contraction of the heart would cease and death would ensue and all vitality come to a rest; just as a planet would cease to move if the centrifugal and centripetal forces were removed.

What is death?

Scientifically speaking, there is no such a state as death, but, relatively speaking, death is a dissolution of the specific chemical constituents in their physiological association in the organism. The relation and conditions of the molecule in death is the reverse to that in life. In life they build, but in death they dissolve. The dissolution is always the result of violation, producing a disagreement in the molecule of the organism. A house divided against itself can not stand; when union ceases death ensues.

Which is the most natural, to live or die?

It is more natural to die than to live, since all conceivable forces or motion is hastening to a final rest.

What is pain?

Pain is the result of a disagreement in the equilibrium of the physiological combination of the specific chemical constituents of the organism, and in which there must be union to sustain life or vitality.

Does pain tend to destroy life or hasten a dissolution?

Pain does not tend to destroy life or hasten a dissolution, but is only the result of the causes hid in the organism, which causes are destined to hasten a dissolution of the physiological relation of the specific, chemical constituents of the organism. Pain is man's best friend; it is a signal, warning man of his approaching danger, and often continues until the organic lesion is removed. Pain is not a true measure of approaching danger, but often exaggerates.

To what degree have medicinal remedies relieved or profited humanity?

In the aggregate, medicinal remedies have not profited humanity, but rather degraded the character and crippled the organism.

There are at present about ten thousand six hundred and sixty-two remedies discovered, and they are expected to contend successfully against twenty-one hundred and fifty-one diseases or morbid conditions of the organism, but in my opinion two of those leading remedies alone, stimulants and sedatives, have degraded and

impoverished the organism physiologically, and thwarted man's being decidedly more than all the combined diseases of earth; while the unwise use of the many other remedies conducted by unsafe hands have softened the osseous structure, weakened and dethroned the nervous systems, and crippled the circulation, and thereby increased the malignancy of disease and often hasten decay and death. Yes, man has sought relief through remedies and often found death. Yet much and lasting good has been accomplished by the hand of the honest and skilled surgeon, aided by the true effort of the good and wise physician.

What relation is sustained between the body and mind?

The relation sustained between the body and mind is of such a character that the conditions found in the body truly moulds or shapes the destiny of the mind (no body, no mind). Like body, like mind. There is a minute cause hid away in the organism of every living individual which defies analysis and confounds speculation, and yet is sufficient to develop or control every emotion of the individual. Professor Elma Gates has succeeded in proving the temperament of an individual by analyzing the saliva.

Our weakness or failures are due to a morbid condition, or a deformity of the molecule of the organism, and is always the result of violation.

The former generations are highly responsible for our failures, while we are responsible for the failures of those who are to come after us.

Is the doctrine pertaining to the resurrection of the body, as we are taught in the Bible, sustained by a demonstration of natural laws?

The doctrine of the resurrection of the body is fully and reasonably taught in the Bible, but to my mind is clearly proven by the demonstrations of natural laws.

One drop of water reduced to its minute chemical constituents and transformed, even into other formations, and scatter it to the four winds of the earth and let it remain for a period of millions of years; its contents is neither hid, nor lost, but at the bidding of two natural laws, evaporation and condensation, which is only but the power and will of God, it comes forth and presents its former appearance.

Heat when diffused in space will return to its former state at the bidding of natural laws. Light, when radiated, may wander through the dark, cold region of space for all time to come, yet not a ray is lost. Vibrations may continue through time and sweep eternity; a single thought winds its way, like a blazing star, and yet never dies. In all creation there is neither gain, nor loss, but a broad field of eternal facts sweeping on to a perfect intent.

The body is as immortal as the soul, it can not be annihilated. This is clearly proven by every demonstration of natural laws. Yes, to the finite mind the act of resurrecting is far less wonderful than the act of creating and reasoning according to natural science; man shall hear the still voice of God, and shall come forth and shall present his former appearance, and which act will be, to the finite mind, the most superior and crowning effort of God in all his works.

Is there a permanent change in our climate and if so, what are the causes and what will be the ultimate result?

The climate in every nook and corner, not only of our globe, but of all other globes found in space, are undergoing a permanent change rapidly, in proportion to the reduction of their internal temperature. The moon at one period was a beautiful orb, possessing all the qualities and beauty of the earth on which we live, but due to the smallness of its size, it has long since cooled out sufficiently to drink into its substance all the water that ever existed on or about its surface, leaving the moon a cold, barren field. Its death as a planet is due to the fact that no water is found on its surface to create or modify its atmosphere.

The earth at one remote period, like a flying, blazing ball, surrounded its surface, but held many miles far away.

All the water and constituents which go to make up our atmosphere, but at a later cooling the refreshing showers first fell upon the pools and continued to increase until there were formed beautiful lakes, and continued to move toward the equator and increase in quantity until the

entire earth was covered, like an ocean deep; and the continual fall of internal temperature, aided by absorption of the soil, resulted in beautiful islands and, later, into magnificent continents.

And this cooling and absorbing process will progress increasingly until all the water which once contributed to a beautiful world, will be hid deeply in the bowels of the earth, or resting on the surface in the form of perpetual frozen fields of ice. The appearance of all former water beds to a casual observer prove this fact to be an axiomatic truth. Yes, our beautiful world on which we live is hastening on to its everlasting death; and those who will view us from more magnificent distant worlds will exclaim of the earth, as we do of the moon: "She is dead, but will continue whirling on through space as a dead planet for a period which is incomprehensible by a finite mind."

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[Written for the MEDICAL BRIEF.]

It Was Intuition.

BY ALEXANDER WILDER, M. D.,
Newark, N. J.

Many years ago, Nathaniel Hawthorne was summarily dismissed from his position in the Custom House at Salem, Massachusetts. He had been honest, faithful and efficient, but a new administration had come into power at Washington, and Mr. Hawthorne was a Democrat. Friends sought to procure his reinstatement, but one individual opposed the endeavor with the remark that the man was a "visionist."

Probably my attempt to solve the question of Dr. Wilmans in a recent issue of THE MEDICAL BRIEF will subject me to the like imputation of visionary, as believing in the reality of things of the imagination. Perhaps I am credulous; I am anxious to believe, but have an almost morbid fear of being deceived or mistaken.

Dr. Wilmans states that his patient was suffering from a gangrened limb, intensely painful and emitting a putrid odor that could not be endured. Physicians had treated it without success, and Dr. Wilmans being called to the case, dressed it with carbolic acid. Being summoned again some days later, he applied a lotion of persulphate of iron, instructed the patient to apply it himself, and hastened away to get into a tolerable atmosphere. On the eighth day afterward, the patient met him and showed him the limb, almost entirely recovered.

The doctor asks whether others have had similar experiences, and whether it was "intuition" on his part, or "faith" on the part of the invalid, that performed the cure, or whether it "just happened." I do not relish the practice of referring matters which are hard to explain to "coincidence." It is a species of wilful disbelief. Such would find my evidence, even of their own eyesight, incredible. I am willing to ascribe wonders to the power of faith to effect cures, but it appears to me that if this patient had been a case of faith, he would have begun to recover when Dr. Wilmans applied the wash of carbolic acid. We are shut up, as candid individuals, to the conviction that Dr. Wilmans followed intuition.

There are two great classes of human beings as distinct, and yet, perhaps, as essential to each other as the opposing poles of the magnet. One class is susceptible to mental suggestions and telepathic communication, the other scouts everything of the kind, like the Sadducee, believing in neither angel nor spirit, and even venturing to eliminate the Supreme Being from the universe. To the former of those classes, the true physician must belong. Of this I would be exacting; I care little for his diploma, and absolutely nothing for his paid-for license, when the individual himself is up to the mark. Licenses do not create physicians, or even show they are good and deserving ones. Dr. Wilmans is evidently of the former class; and if I were to have occasion for treatment of a character analogous to that which he describes, I would like to have him, or some one like him, within call.

It can be no extraordinary concept that the mind is more a reality than the body. It is permanent—always identical, the same entity in the octogenarian as in the ephebos. The body is always changing, and perishes totally when the mind is gone. Being the true entity of the individual, it is able on its own account to communicate with other minds and re-

ceive suggestions from them. This may possibly explain the point in Dr. Wilman's procedure. Or it may be that there was some secret knowledge or concept hidden away in his own mind, which, like a forgotten reminiscence, only required an exigency to bring it into conscious remembrance sufficiently to enable him to put it in practice. I think it was intuition.

[Written for the MEDICAL BRIEF.]

Vitality.

BY F. L. GOURLEY, M. D.,
Waukegan, Ill.

Vitality is the name ascribed to the power or force of a cell, or a collection of cells, which go in different shapes and forms to make up the different tissues of the body, to resist germs which might under other than a healthy condition produce their characteristic disease. That power or force lies in the protoplasm of the cell, with the nucleus as a center. Germs, or bacteria, are active cellular organisms found in air, water, milk, foodstuffs, etc., which pass from one place to another as long as they retain their life, seeking some favorable media upon which they can thrive and propagate their kind. Good, healthy cells make up healthy tissues. Now, an inflamed or abraded surface is a good media, where germs can thrive, or a route by which they can enter the blood or lymphatic circulation, and there they can go to work, or be carried to other organs of the body which may be a more favorable location.

There are two kinds of vitality: Localized and general. A diseased condition of a localized tissue produces a localized lowered vitality of the affected part; that is, the tissues in a state of inflammation are using their power endeavoring to repair the condition already present, without the extra effort of endeavoring to destroy or hold off the effects of germs other than those already present, which are looking for just such a media. An example of this is a tubercular bacillus endeavoring to get hold on a case of chronic bronchitis. Another example would be a case of typhoid bacillus endeavoring to work on an inflamed intestine, such as chronic enteritis. General lowered vitality we find in such cases as rickets, chronic gastritis or such diseases as produce malnutrition. In these cases we have six cells all over the body, making the individual a compound of six cells; therefore, general lowered vitality, for in such state the individual's entire body is composed of poorly nourished blood and nerves, a media for many kinds of germs.

Therefore, we have vitality, whether local or general, the fighting power of the cells or tissues. When in perfect health the vitality is highest, when through disease, malnutrition or injury it becomes lowered until death of the cells or tissues are reached, or by repair they again regain their normal health, or highest vitality. In the treatment of these diseases the first and most important thing is to make a diagnosis of the part or parts effected, whether local or general. If localized, then we should prescribe, or apply, such medicinal remedies and give such attention to those parts as is necessary to effect a cure. If it be malnutrition, correct that by out-door exercise, cod liver oil, stimulants and good, nutritious foods. Vitality, then, is found to be energy, force, or the resisting power of cells and tissues to keep in health and starve out the germs which are constantly present, and not succumb to a lowered state, where they become a favorable media.

214 Washington Street.

[Written for the MEDICAL BRIEF.]

A Singular Case.

BY R. A. CLOPTON, M. D.,
Milan, Tenn.

I have just had a singular case of which I wish to tell you.

Mrs. S., aged forty-two, married fifteen years, no children, has been in bad health for several years. She has been treated by half a dozen different surgeons and gynecologists without much, if any, benefit.

She came to my sanitarium on April 2, this year, in a very weak, debilitated condition, bordering on complete nervous prostration, and weighed eighty-five pounds. She was suffering with constipa-

tion and stricture of the sphincter muscles of the anus.

She could scarcely walk, even with the aid of a support, and could not stand more than a minute or two at a time.

She was without appetite and subject to nausea. Her menstruations had ceased about eight months ago.

Upon examination I found that she had a double vagina, *i. e.*, there was a septum between the two openings to the os uteri, and on digital examination the os could be felt through both openings.

The septum extended to within one-quarter of an inch of the os, and on introducing the sound the womb was discovered to be scarcely two inches deep, yet was in a normal condition; no ulceration.

This patient and her husband, on account of her age, refused to submit to an operation to sever the septum, and thereupon I began and pursued treatment as follows:

I gave static and galvanic electricity; also, the indicated internal remedies; also, having her use, at bedtime, anal dilators of different sizes, which have overcome the constipation, nausea, etc., and she has improved remarkably fast. She has gained more than ten pounds in flesh, walks with ease about the place without support, eats heartily and digests her food quite well. She has regained her spirits and is as cheerful and hopeful as a child.

Now, what do you think of this case? Is it a rare or common one? In all my practice I never had but one case similar to this one before. The other surgeons who examined her never discovered the peculiar septum.

[Written for the MEDICAL BRIEF.]

A Matter of History.

BY CHAS. S. MACK, M. D.,

La Porte, Ind.

In Luther's day a question arose as to union between one and another body of Protestants. "The matter, said Butzer, was a mere dispute about words, and was so difficult only because they had 'abused and sent each other to the devil too much' "—(*Kostlin.*) Has this bit of history a lesson for us moderns in a divided medical profession?

[Written for the MEDICAL BRIEF.]

An Interesting Case.

BY H. H. HARMAN, M. D.,

Shellman, Ga.

The following history of a case, which occurred during the Civil War, may prove of interest to BRIEF readers.

Mr. Jasper Swords, of Company H, Fifty-seventh Georgia Regiment, was shot the second of July, 1863, at Gettysburg, viz.: two inches from root of nose to the entrance of the bullet in center of cranium, was rendered unconscious for awhile and found himself behind a rock not far from where he was shot, and seeing no enemy near got up and made for the rear under a fusilade of musketry and grape shot, and but for his belt, which saved his life, this history would not be written. He walked from Gettysburg, Pa., to Staunton, Va., and never rode in a wagon or ambulance; thence by rail to Lynchburg, and in four days left for Georgia, and with the exception of a few pieces of bone that came away, had no trouble. He returned to Virginia in the latter part of 1863, and the first of October found him in the ranks with his company, with no impairment of mind or body, and on October 19, 1864, had a leg shot off and was paroled in March, 1865, and in the evacuation of Richmond was recaptured and returned to prison and was not released under two or three months.

Now, as to the subsequent history of this now old man. He came home and ploughed an ox until the State gave him a one hundred dollar pension, and he invested in a mule, and has raised seven or eight children and worked on the farm until three years ago, when he had an attack of rheumatism, which has permanently disabled him. Last year he had a slight stroke of paralysis on right side, but has gotten well enough to walk on his old wooden leg. During April he awoke one night and found a piece of lead in his mouth, and on examination found nearly one-half of a minie ball in his mouth, which had escaped back of his uvula. He now has some nasal discharge of a purulent character, but goes about wherever he pleases. The size of the bullet is three-fourths of an inch long and

one-half of an inch wide, with the under surface rather rough. Now, in what part of the brain has this piece of lead been these forty-two years, showing no inconvenience until some time last year. All these years, except a few chills and fever, he has been very well and is now seventy-one years old. His vision is somewhat impaired and has been for three or four years.

[Written for the MEDICAL BRIEF.]

A Nut to Crack.

BY W. T. DAVIS, M. D.,
Harrodsburg, Ky.

I noticed in the October MEDICAL BRIEF an article upon yellow fever, written by J. H. White, M. D., of Mobile, Ala. Dr. White states, in regard to the etiology of yellow fever: "As to its etiology, it is conveyed *solely* by the mosquito known as *stegomyia fasciata*." This fact was proven by the experiment of Walter Reed, Surgeon U. S. A. Now Reed's experiment showed that a mosquito, to become infectious, must bite a yellow fever patient during the first three days of his fever. The medical fraternity all know that a mean annual temperature of about 72° F. is necessary to its activity, and that cold —a frost—suffices to destroy it. We also know it occurs only south of 48° north latitude.

Now, I wish to learn something in regard to the cause of such a fatal disease; that being my object, I wish to ask a few questions. Does the mosquito (*stegomyia fasciata*) go beyond the bounds of yellow fever at no time? When the mosquito wings its way as far as south of 48° north latitude, does it halt there? If the mosquito can and does go further north, why is it we have yellow fever *only* south of 48° north latitude? The mosquito could bite a yellow fever patient and then cross the line. If it can and does cross and bite people unlimited, and they would be just as liable to take the yellow fever as those that were bitten in the yellow fever district, and then emigrated somewhere north before it showed itself again. The first frost puts an end to yellow fever. Does it put an end to the mosquito also? If yellow fever is conveyed *solely* by the mosquito after it has bitten some yellow fever patient, where does the mosquito find the first yellow fever patient to bite? What caused the first case of the yellow fever to make its appearance, so the mosquito could have the chance to bite it? It reminds me of the Irishman's cow. A lady in the presence of an Irishman, remarked: "I would like to own a cow, giving milk, that had never calved." The Irishman spoke up very fiercely: "Begad, madam, I have the identical cow you are wanting; she is now giving milk and never had a calf; neither did her mother before her." How did the Irishman's cow come? How did the first case of yellow fever come for the mosquito to bite?

Gentlemen, we had better combat diseases after they make their appearance than to waste our time after causes of diseases, when we are very little nearer knowing the causes of diseases now than we were fifty years ago.

[Written for the MEDICAL BRIEF.]

Malaria and the Mosquito.

BY JAMES A. HOPKINS, M. D.,
Milton, Del.

We see that many of the medical journals of the day are inclined to bring many charges against the pesky mosquito, not so much for his mischievous habits, but as one of the causes of malarial fever and much of the trouble that it brings. We often see diseases which, for convenience, we call malaria; it may be so, and lay it at the door of the mosquito world. We have never had much love or regard for him, yet we are inclined to think that he is a very much persecuted insect and stands charged with sins, many of which he is not guilty. While this does not worry him very much, for his life is short, at best nine days reckons their length, and the end of time with him.

We happened to arrive in this world on a farm, very near a salt and fresh marsh, where all sorts and kinds of mosquitoes were raised, or grew up, in great abundance. At that time chills and fever prevailed, as well as many other malignant diseases. We were compelled to use large

quantities of calomel and quinine, as well as other drugs, to make our patients well. This state of affairs continued through the fall months of each year. Nearly every house was a hospital at that season. Agricultural interests ran low, but Necessity, the mother of Invention, brought about a condition where an improvement of the soil was a necessity, or no crops; hence the use of lime to replenish that which had been exhausted from the virgin soil, when the malarial troubles gradually began to decline. The pesky mosquitoes continued. A few years after this the farmers began the growing of wheat and other crops, where fertilizers were used, when the malarial fevers abated more and more, and have continued up to this time. Now, they are almost unknown (as an epidemic), and instead of one ounce of quinine each a week, we do not use one a month in all of our practice. The marshes yield about the same crops of mosquitoes every year, but chills and fevers are *non est*. While we will not excuse the mosquito entirely, for there may be a case traced to his embrace, we have seen ugly sores and blood poison occur from his bites and stings, but must say we believe him to be a much-persecuted insect, and that the mosquito has its origin from the malaria, and not the malaria from the mosquito.

[Written for the MEDICAL BRIEF.]

"The Psychology, Chemistry and Magnetism of Love."

BY AXEL EMIL GIBSON, M. D.,

Los Angeles, Cal.

[A few reflections *apropos* Dr. Lindsay's paper on this subject, published in the July number of MEDICAL BRIEF.]

While the manifestation of the affectionate emotions, with their fluctuating desires and attractions, may resemble the affinities exhibited in electrical and chemical action, the semblance, however, is confined to the surface, as the principles involved in the two processes are fundamentally different. Thus love, being a psychic power, can never be considered molecular, while chemistry and electricity, with their basis in the elemental world, undoubtedly are. The one set of forces, the molecular, influences the mind through the body; while the other, the psychic, influences the body through the mind. The former constitutes the universal rebound of spiritual forces reflected by matter; the latter, the original action of these forces on their passage from their point of emanation to their work on the substances and entities of natural evolution.

Electro-chemical forces furnish the basis or environment by and through which the elemental action of life is rendered possible. But the forces of environment are dormant and must be elicited by external stimuli. Now, if these forces were derived from no other source of power than their own combustion, the elemental forces of evolution would gradually exhaust their storehouse of dynamics, and the impulse at work in forming and breaking up molecular affinities, be arrested, with the subsequent cessation of evolutionary activities.

Without this original, ever fresh, ever constructive impulse in natural evolution, the ascent of life, with all its specialties of growth and progress, would be impossible. Through this impulse new fuel is continually poured into the evolutionary furnace to sustain the vital combustion of substances in the ensuing structures. To regard this impulse, however, as self-generative and self-directing, would have no support in any known condition of growth and unfoldment. As the chemist in his laboratory conducts the paths of his bases and acids, his solids and fluids to form combinations of purpose and usefulness to life and culture, so in the "chemistry of love," to use Dr. L.'s nomenclature, the processes of emotions and feelings, affections and disaffections, etc., are guided by the "chemist of the mind"—the planning, directing, executive genius of life—the human soul.

Now, if the soul be the chemist of love, the mind is his chemical laboratory, and emotions, feelings, passions and desires are the elements by which the compounds of human characteristics—the vices and virtues—are formed. And the combinations do not ensue haphazard, but in minutest accord with the mental and moral attitude of the mind. No emotions enter the self-conscious mind, or are capable of

swaying it, with less invited by the moral attitude of the individual. For the mind is an Apollo's harp, on which every passing strain of emotion, every quiver of passion and feeling, if permitted, may evoke harmonies or discords, in accordance with the shades of the involved consciousness. And the strength of character, freedom of will, and power of determination arising from this play of con sciousness indicate our attitude to the moral issues of existence.

Plato was right, ideas rule the world. Impulses and thoughts, if tolerated, take possession of us, using our mind as arena for their tournament of suasion. And though the ensouling power of thought is love, the thought, as a vehicle, is capable of sustaining and promoting ignoble impulses. If the mind, however, be serene and pure, the idea entering it will transmit a message of the true, the good, and the beautiful, with a distinctness corresponding to the strength, purity and motive of its manifestation. Responsive to the beautiful, the mind becomes a receptacle for the art-idea, impelled and gauged by the power of love, and the man thus inspired becomes a lover of art, an artist. Likewise, the poet, the philosopher, the scientist, attain their respective powers of genius by receiving the ideas of the true and the good in their minds, under the guidance of love. In fact, all originality in thought or action, all inventive genius in art or construction, is due to the power of the soul to hold the mind attuned to the streams of creative ideas passing through its sphere.

Hence, love means something more than sex-instincts and conjugal personal relations. In fact, the more lust and passion involved in human affections, the less real love is present. Love, in itself, is ever true, ever unselfish, ever pure and, like the sun, with which it has an unmistakable semblance, diffuses its warmth and radiance over every object within its zone of energy. For what is love but a universal sun of soul-light, diffusing with unvarying intensity rays of truth, beauty and goodness to every receptive mind. And, as the physical sun in itself remains undiminished in its integral strength and brilliancy, whether its rays in their passage becomes obstructed, or not, so the sun of love, in its real, eternal nature, remains above the changes of time and circumstances, unaffected by the emotions, feelings and passions of the creatures moving in its sphere. For the changes of feeling to which it may give rise spring from its nature of expression, not from its nature of being.

Consequently, whatever is personal and selfish in the feelings and affections of men are not due to the nature and essence of love, but to the individual minds in which love finds a temporal expression. And as the sun—to continue the simile—depends for the clearness of its expression on the clearness of the medium in which its image is reflected, so the sun of love, reflected in the minds of men, will give rise to such expressions of feelings, emotions, sympathies, passions or compassions, lusts or affections, as find a basis of response in these minds.

The genesis of passion and lust in human nature is thus readily traced. For what are these low emotions but the distorted image of love mirrored in the turbid waters of a selfish, impure mind. The very power by which passion is found to wreck or thwart human destinies reveals unmistakably the source of its origin. Its strength, however, holds the same relation to love as a convulsive mountain torrent —rendered useless by its very forcefulness—holds to the ocean, which by its very calmness and placidity renders immeasurable service to the world. Love expands and universalizes, passion contracts and isolates. Love proceeds from the individual to the universal, lust from the universal to the personal. The one constructs, the other destroys; the one constitutes the driving force in evolution, the other its retarding factor—the dead weight on the train of life.

But while love is thus associated, directly or indirectly, with the various forces and powers of universal nature, it would be unphilosophical to identify love with any of these forces and to hold with Dr. Lindsay that it (love) is "purely magnetic, due to the affinity of positive and negative electricity." For if love is generated by electric polarity, what would give rise to the action of the latter? Or

how can the lesser contain the larger? The forces of chemistry and electricity give birth to a power by which they, in their turn, are conducted and governed. For is not love the governing power of life; the prism of consciousness, at once gathering and scattering the numberless forces manifested in universal evolution? The whole sweep of cosmic energy, to be constructive and purposive, requires the presence of a co-ordinating, adjusting intelligence. And what power of intelligence is more universally manifested than love, the influence of which is felt in the breath of every flower, in the affinity of every atom, in the sympathy of every heart? And, lastly, if love has its birth and genesis in electrical affinities, by what miracle did it evolve a power through which the very forces of its alleged origin are held in abeyance?

In itself unregenerate and indeterminable, the nature of love is intellectually appreciable only through its forms of expression. Its relation to these forms is ever that of silent method, and depends for its influence on the passive receptivity which the latter hold to the imparted impulse. Affinity does not take rise *by* the molecule, but *through* it; our affections are not generated *by* us, but *through* us. Philosophically considered, we do not love—*it loves* in us. Conforming to certain conditions of life, in thought and conduct, we grow receptive to the action of love, and its influence becomes manifested in our nature. In a lesser degree, the same also holds good with regard to the molecule, though the similarity between the molecule and the human creature lies beyond the form, in the universal essence vivifying the form. Furthermore, as the purity of human affections are due to the purity of the mind, so the qualitative value of inorganic elements springs from the ratio of vibration by which the molecules of these elements respond to the pressure of the universal life impulse.

This, of course, removes every trace of accident or chance from the process. For the difference in the powers by which the molecules respond to the vital impulse must be due to some inherent difference in the constitution of these molecules, which again must refer to some still deeper and ulterior cause. And this places the whole series of vibrations, molecular and hyper-molecular, with their corresponding expressions in affinities and affections, within the domain of laws, as cause and effect—the process of an occurrence unfolding into its appropriate sequence—forms the chain of events which constitute the reign of law. Hence, love and affinity, though *per se* ungenerate and indefinable, are, nevertheless, manifested in the affairs and destinies of men under the auspices of universal law.

In his argument for the molecular-magnetic nature of love, Dr. Lindsay makes the statement that "Two men with magnetic polarizations, falling into each other's arms in the dark, and each thinking the other to be a woman, would experience the same thrill of attraction as if opposite in sex. This takes much of the romance out of the usual love affairs," concludes Dr. L., who, while trying to prove the electro-chemical-molecular character of human affections, on the contrary (by the very situation used in his illustration) furnishes the most powerful argument in favor of love as an unique and self-sustaining soul-power. For if affection and affinity, love and polarity, are identical in nature, a deception, such as quoted by Dr. L., would be unthinkable, as neither electric polarity or chemical affinity depend on daylight for their processes. The masculine molecule in the one man would find no greater inducement in darkness than in light to combine with the equally masculine molecule of another man; not more so than a negatively-charged particle, through the cover of darkness, would be induced to combine with another particle, charged with similar polarity. Hence the very fact that darkness did not interfere with the workings of the affections of the two men, is certainly a good argument in favor of the view that the forces engaged in their natures were moral and psychic, rather than electro-chemical in character. Had molecular affinity been the determining factor in the case, a continuation of the attraction between the similarly polarized molecules of the two men would be scientifically impossible. For while human affections, under certain condi-

tions, may be blind, no such infirmity can ever be postulated in the workings of chemico-electrical affinities.

Love is a force, *sui generis*, and manifests under conditions and environments all its own. Ungenerate and eternal, it is not an output of evolution, but the cause and mover of it—the force *par excellence* by which the lower forms and substances of existence are propelled into ever higher and purer states and stages of consciousness. Its emergence in the human mind is not in the form of gift, but of attainment; the results of a culmination in an individual's life of universal virtues. Gradually, and with infinite care, preparations are made to render the mind fit for a dwelling place to the monarch of life and destiny. Hence, only the pure in mind can truly love. "A great love," says George Eliot, "does not necessarily mean a great intellect, but it certainly means a great nature;" a thought which received its highest amplification in the judgment of mercy pronounced by the sage of Nazareth on the woman who had sinned: "Her sins, which are many, are forgiven; for she loved much."

611 South Flower St.

[Written for the MEDICAL BRIEF.]

Sexual Hygiene of the Hebrews—The Sex Question

BY SILAS HUBBARD, M. D.

East Aurora, N. Y.

It would be a very long story to give the general hygiene of the Hebrews as given in the Pentateuch. Therefore, I will only comment on some of the sexual hygiene as given in their laws. I will begin with Exo. xx:14: "Thou shalt not commit adultery." This, according to Christ, means neither in word, thought nor deed—Matt. v:27.

It is written that Jacob peeled strips of bark off from green poplar and willow rods and set them up before the sheep and goats, that when they conceived they should conceive progeny ring-streaked and speckled—Gen. xxx:37-43. This was four thousand years ago, and very many modern physicians believe that very many mothers mark their offspring by what they see during conception and the early months of gestation, which ought to be a caution to mothers.

In Gen. xxxviii:4, 8-10, is given the account of Onan practicing "withdrawal," *i. e.*, committing race suicide. The Lord was displeased with that man and slew him. In race suicide by women many evils are frequently brought upon them. I will mention extra-uterine conceptions, and also weaknesses that can be traced to preventive means.

Very great care was taken of the hymen of virgins and very great dissatisfaction was found by the husbands to find the hymen absent—Deut. xxii:13-21. I will say the hymen was given for a purpose, and I will say even at the present day if possible it should not be ruptured out of wedlock. It at least betokens chastity. The Hebrews displayed more human nature in the protection of the hymen than did the ancient Spartans, who permitted their slaves to rupture the hymen of their virgin wives. The Spartans are lost; while the Hebrews at the present day are on top financially, notwithstanding the violent persecutions by the Russians, Roumanians, etc., etc. The United States is about the only exception where they have not been persecuted.

The Hebrew children were circumcised on the eighth day after their birth to forever remind them of their covenant with God; however, it also had the hygienic effect of cleanliness, and also frequently obviated the necessity of modern surgeons performing the operation to cure certain diseases.

The man or woman who laid with a beast carnally should be executed—Lev. xviii:23. The laws of our own land would severely punish such.

Sodomism was severely punished—Lev. xviii:22. Our modern laws severely punish the same if proved against them.

A penalty is put upon masturbation and incontinence, that a man shall not scatter his seed about wastefully—Lev. xv:16-18.

The Hebrew laws were comparatively lenient to a man who seduced a virgin, provided she was not betrothed—Ex. xxii:16. But if she was betrothed or another man's wife, then both the seducer and the seduced shall be executed—Lev. xx:10; which to some seems like a very

cruel law; but it is no more cruel than the laws of human nature, for the juries of our land acquit the near offended relation for executing the offender.

The Hebrew laws were apparently rather severe on the flirtation of wives—Num. v:12-31. I suppose it was a better outlet to the jealousy of certain husbands of those days than the course of certain husbands of the present day.

Lev. xviii:6-18: None shall marry near of kin; which are good laws, which very much prevents the deterioration of the race by intermarriage, and much other good advice is given in the same chapter.

Lev. xv:2-15: Gives the quarantining of a man with gonorrhea, which is far more efficient than any rules we have in modern days.

Lev. xv:19-27: Gives the quarantining of women during their menstruation and for seven days after, also the quarantining of any who have metrorrhagia, and seven days after their cure, during which time they shall not have sexual intercourse. Now let us see some of the effects of this quarantining; viz.: no children would be conceived during menstruation, nor metrorrhagia, nor short the eighth day after. There would be about twelve days of exemption from conceptions. The law in those days, three thousand five hundred years ago, when the women had no syringes, was a good law, and in obeying it they did very much better than very many women of the present day, in not cleansing themselves, and thus bringing diseases on themselves and frequently ophthalmia neonatorum and blindness of their newly-born children. Another effect of keeping these laws is that many more males are born among the Jews than among the Gentiles, or the world in general, because males are mainly conceived during the last half of the intermenstrual period and girls during the first half, and in this way the Hebrew laws compel them to give more chances for male conceptions than occurs to other nations. To prove this assertion, see my article in the MEDICAL BRIEF, Vol. XXXII., page 1024, and if all the Jews would strictly obey their laws there would even be many more male conceptions among them than at present.

In Lev. xii: The woman, after childbirth, is pronounced unclean twice as long after the birth of a female child than after a male child. The late John Stockton Hough, of Trenton, N. J., declared that this was because the placenta accompanying a female child is larger in circumference than the placenta accompanying male children; and he (Dr. Hough) thought he proved it, and he also thought that he proved that women aborted females oftener than males. I accounted for all this by saying that the placenta accompanying a female child is generally situated nearer the center of the uterus than that accompanying a male child, and therefore had more of an opportunity to expand than when it is situated in the upper part of the uterus, as is usually the case with the placenta accompanying male children. On page 7, Vol. XVI. of the MEDICAL BRIEF, I give the why and wherefore of the placenta accompanying a female child being broader and larger than that accompanying a male child, and why she oftener aborts females than boys, and why, according to Hebrew laws, she is unclean twice as long after the birth of a female as after the birth of a male.

Moses, in giving the laws to the Hebrews, made no distinction between leprosy, syphilis and certain other infectious diseases of the skin—Lev. xiii:14. He quarantined them all and treated them all in the same way, which was the best they could do three thousand five hundred years ago.

By these laws and all other hygienic laws of the Hebrews they maintained much better health than the surrounding nations—Deut. vii:15. And we could borrow many good hints from these ancient laws of the Hebrews.

THE SEX QUESTION.

Patrick T. Meldon, on page 752 of September BRIEF, says: "Marine scientists note the tides according to the moon, and this science is founded on the science of astronomy."

T. E. Reed, M. D., in the same number, page 751, contradicts him, and says: "The theories advanced in our works on astronomy are *presumptuous*."

Drs. Reed and Meldon oppose my remark that "the perfection of the flow of the tide is in the daytime, under the attraction of the sun," which statement

was merely designed to be understood that the tide, under the conjoint influence of the sun and moon, rises higher in the daytime than in the night under the sole influence of the moon.

Dr. Reed advises us to buy a certain large pamphlet, which gives us a summary of the tides along the whole coast of the Atlantic, including Canada and the West Indies. I would like to know how that would help us, living in the interior States where we can not perceive the tides, and also when the tides are not the same in time in any two places. In fact, I know of no other way of being certain in this latitude and longitude except to make a trip to the Atlantic coast, and enter the tides in a boat and there demonstrate the problem of the sexes, according to Dr. Reed's theories. I expect this would be cheaper and more certain than consulting Dr. Reed, the autocrat of the tide theories, for during the last ten or twelve years of his preaching these tide theories I have not heard of any physician being converted to them. I will say that I could name a number of talented physicians who have adopted, as facts, the larger portion of the theories which I advanced in the *Buffalo Medical Journal* in 1850, 1852 and 1855. I see they have come to stay.

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[Written for the MEDICAL BRIEF.]

Pneumonia, Fatality In.

BY S. J. BROWNSON, M. D.,
Elkins, Ark.

Dr. E. V. Pennington, in the March BRIEF, has well-expressed the first half of what I have been trying to get time to say for several months on the treatment of pneumonia. I, too, used to wonder why there were so many deaths from this disease in New York and other Eastern cities, until I found about the same percentage died all over the country, wherever the same system of treatment was pursued. I have thought what Rev. Henry Ward Beecher used to say of Presbyterian graduates for the ministry could, with great propriety, be said of a very large number of medical students when they get their "sheepskins." The great divine said the Presbyterian minister, when he entered the ministry, "took an oath never to make any progress." Certainly the doctors who allow all the way from fifteen to forty per cent of their pneumonic patients to die, or even this ratio of their typhoid cases to pass over, have made no progress since leaving their *alma mater*. Far better, "let Nature take its course," than actually hasten poor, suffering humanity into its grave, as many of these young and old "fogies" evidently do.

In my practice of many years I have not lost two per cent of my pneumonic cases. This includes all I have had, except occasionally a case where I have been called in at the eleventh hour—in consultation—and I have saved a very large proportion of even this class of patients.

Now for my treatment. It is eclectic in the main. And this is quite a confession for me to make after graduating from an alopathic college. But I found the methods I learned in my college were not satisfactory, so I began to reach out for something better, and I found it. "Not ethical," does some one say? Well, what do I care for that; and the patients I cure care still less. The first and the supreme thing with me is to cure my patient. I care not a fig what I use, who discovered it, who advocates it, or who condemns it. I never think of medical ethics, or "pathies," when at the bedside of my patient. Morerover, I treat diseased conditions as indicated by certain symptoms rather than names simply.

In the pneumonic condition, as soon as the diagnosis is well made, I envelop the diseased lung in a thick, hot plaster, well-covered with several thicknesses of hot flannel or cotton—anything to keep the heat in and the air out. A bandage keeps it in place for two or three days, until it is dry, then it should be taken off. Within twenty minutes the patient says, "I feel so much better." Of course I see that the *prima via* is opened with one-tenth to one-half grain of calomel and soda bicarbonate, given every one to three hours for a few doses, unless contraindicated. If not indicated, I use chionanthus, podophyllin, or salts, and such a disinfectant as is needed. If patient is strong, with pulsating carotids and high fever, veratrum is my best sedative. If not, aconite or aconite and veratrum. If nervous, with

bright eyes and hot head, gelsemium Bryonia and asclepias I most always use for sharp, cutting pains on coughing or moving, and hard, vibratile pulse. If there is tendency to congestion anywhere, especially in the brain, indicated by dull pain back of eyes, dull look, or impaired capillary circulation, belladonna is the remedy; ipecac, lobelia, sometimes sanguinaria, or sticta are my standbys for cough.

The plaster is used only in the sthenic stage. I frequently abort the disease or jugulate it before the fifth day. I seldom have to use any digitalis, or other heart tonics. Explicit instructions are given as to diet, cleanliness, nursing, fresh air, etc. Occasionally a tonic is given for a few days in convalescence, consisting of quinine, or iron, strychnia, or Fowler's solution of arsenic, or all combined, as the condition demands. But sunshine, fresh air, light exercise and foods appropriate, such as old, well-baked whole wheat flour bread, eggs raw or lightly cooked, fresh milk, beef tea, cream of wheat, etc., and later fruits and vegetables, all well masticated, constitute the best tonic. Sometimes, in the aged, good whisky or eggnog is allowed.

This is my usual treatment. It is mainly eclectic—I give credit to whom credit is due—and hygienic. Old Dr. Nature is my great instructor. So I save about all my patients. Has Dr. Pennington anything better?

[Written for the MEDICAL BRIEF.]

Digitalis in Acute Bright's Disease.

BY W. S. ROBINSON, M. D.,
Nashville, Ark.

In the treatment of acute Bright's disease, you should hasten the elimination of urea and counteract the effects of urea and waste products upon the nervous system. The eliminative function of the kidneys is greatly increased by the administration of digitalis, and I regard it as the most valuable drug for this purpose; however, its action must be watched.

If the amount of urine is not increased, its use should be discontinued; but in nearly all cases it increases the secretion of urine without stimulating the kidneys to any great extent—and thus carries out of the system the urea and its allies.

In chronic Bright's disease, Tyson says the chief indications are, first, to improve the quality of the blood, which may have become anemic and contaminated with urea and allied effete matter; and, second, to combat the symptoms and complications which form a source of great inconvenience and danger to the patient. I have recently had a case of Bright's disease (locomotive engineer) who was pronounced hopeless by the railroad hospital physicians, and my treatment was iron, quinine and strychnine, in small doses, with strictly milk diet, and I have never seen a case improve faster. Now, whether it is the treatment or the milk diet that is doing the work, I am not able to decide. My opinion is, that milk diet in these cases is very important in the treatment.

[Written for the MEDICAL BRIEF.]

Chills and Fevers.

BY J. A. BURNETT, M. D.,
Cecil, Ark.

In "chills and fevers," when the liver is sluggish and there is constipation, the following gives good results:

℞ Quinine Sulphate ..... 72 grains.
Acetanilide ..... 48 grains.
Capsicum ..... 24 grains.
Podophyllin ..... 3 grains.

M. Sig.: Divide into twenty-four powders. Give four doses two hours apart before each chill. Beginning so that the fourth dose will come one or two hours before the chill is due. At other times give a dose every three or five hours.

[Written for the MEDICAL BRIEF.]

Depilatories.

BY T. HENRY WHITING, M. D.,
Elgin, Ill.

For the removal of facial hair or in minor surgical operations:

℞ Bari Sulphide ..... 2 ounces.
Oxide of Zinc ..... 1 ounce.
Starch (Pulv.) ..... 6 ounces.

Mix and pass through a sieve, pour the powder on a saucer, about a thimbleful, add a little water, enough to make a thick paste.

Spread on the skin with a flat tooth pick over the growth of hair. Allow the paste to dry three to five minutes, then remove by washing.

[Written for the MEDICAL BRIEF.]

Examination Questions of the University of the State of New York.

Answer any ten of the questions under each heading, but no more. Check the number (✓) of each one of the questions you have answered.

ANATOMY.

TUESDAY—9:15 A. M. TO 12:15 P. M.

1. Describe the differences between the sacrum of the male and that of the female.
2. Locate and describe Cowper's glands.
3. Describe the sternum. Mention *four* muscles attached to the sternum.
4. Give the minute anatomy of the skin.
5. What veins return the blood from the head and face?
6. State the origin of the internal iliac artery. Mention *five* branches of the internal iliac artery.
7. Give a general outline of the trifacial nerve, mentioning its principal subdivisions.
8. Describe the tongue as to its (*a*) muscular connections, (*b*) nerve supply, (*c*) blood supply, (*d*) structure.
9. Mention the coverings of a femoral hernia.
10. Describe the pancreas.
11. Give the boundaries of the axillary region and mention its contents.
12. What are the valvulæ conniventes and how are they formed?
13. Describe (*a*) aponeurosis, (*b*) fascia.
14. Give a description of the thyroid gland.
15. Give the relations of the heart to adjacent organs and tissues.

PHYSIOLOGY AND HYGIENE.

TUESDAY—1:15 TO 4:15 P. M.

1. Describe the red blood corpuscles as to (*a*) origin and fate, (*b*) form, (*c*) size, (*d*) number, (*e*) function.
2. What is understood by endocardiac pressure? State the causes of the pressure in the arteries, capillaries and veins.
3. Give the elementary structure of all secreting glands and mention an example of the changes that take place in any one of them during secretion.
4. Give the minute structure of the kidney. State the accepted theory regarding the mechanism of the secretion of urine.
5. Through what channels and by what processes are the end products of digestion conveyed to the blood?
6. Mention and describe (*a*) the superficial reflexes, (*b*) the deep reflexes.
7. State the function of (*a*) the vas deferens, (*b*) the vesiculæ seminales, (*c*) the prostate gland.
8. What are enzyms? State the special function of each enzym concerned in digestion.
9. Describe normal pulmonary sounds.
10. Give a dietary for people beyond sixty years of age.
11. What diseases may be transmitted through the agency of (*a*) the soil, (*b*) insects, (*c*) water, (*d*) air, (*e*) fomites?
12. State the significance of the presence in drinking water of (*a*) nitrates and nitrites, (*b*) excess of albuminoid ammonia, (*c*) excess of chlorin.
13. Mention the principal causes of infantile mortality. What hygenic regulations would tend to reduce the high mortality rate among infants?
14. How should a patient who has been rendered unconscious by heat be treated?
15. What constitutes a thorough inspection of milk as to (*a*) food value, (*b*) purity?

CHEMISTRY.

WEDNESDAY—9:15 A. M. TO 12:15 P. M.

1. What inorganic salts enter into the formation of human bone?
2. Give *two* tests for recognizing the presence of albumin in urine.
3. Define specific gravity. Give methods of determining specific gravity.
4. How is bromin prepared? What important salts of bromin are used in medicine?
5. Give the formula and the method of preparation of calcium carbid.
6. Give the sources and uses of carbolic acid.
7. Give the uses and chemical properties of sulfur. Where in the body is sulfur found?
8. Define chemistry, molecule, physical change, chemical change, positive element.
9. What conditions favor (*a*) crystallization, (*b*) efflorescence?
10. Give the method of preparation and state the uses of monoxid of lead.
11. What is formaldehyde, how is it prepared and what are its uses?
12. Give the formula, properties and preparation of each of *two* of the following: (*a*) potassium chlorate, (*b*) potassium sulfate, (*c*) potassium iodid.
13. Give a detailed test for arsenic in a mixture of food taken from the stomach at a *post-mortem* examination.
14. What is glycogen? Where in the body does it occur? How is glycogen prepared?
15. What alkaloid is common to tea and coffee? From what are cocoa and chocolate derived?

SURGERY.

WEDNESDAY—1:15 TO 4:15 P. M.

1. Describe anthrax and give treatment.
2. Give a classification of tumors conforming to the type of embryonic connective tissue.
3. Describe the technic of exploratory puncture in general and discuss the value of such puncture.
4. Give the diagnosis and prognosis of fracture of the base of the skull.
5. Describe a dislocation of the ankle joint.

6. Describe the effects on the lumbar spine of flexing and extending the diseased limb in hip joint disease.

7. Describe (*a*) genu valgum, (*b*) genu varum. Give the treatment of *one* of them.

8. Give the diagnosis and treatment of aneurism of the femoral artery.

9. Give the treatment of deep urethral stricture.

10. What are the indications for (*a*) cholecystectomy, (*b*) drainage of the biliary passages?

11. Give a classification of hemorrhoids. Give the symptoms, diagnosis and treatment of hemorrhoids.

12. Mention in order of frequency of occurrence *three* of the most common tumors of the vulva. Give the treatment of *one* of the conditions mentioned.

13. Give the diagnosis, prognosis and treatment of corneal ulcer.

14. Describe an operation for the radical cure of hallux valgus.

15. Give the technic of *two* methods of skin-grafting.

OBSTETRICS.

THURSDAY—9:15 A. M. TO 12:15 P. M.

1. Define and describe pelvimetry: state the objects and methods of pelvimetry.

2. What are the physiologic processes of fecundation up to and through segmentation?

3. State the possible causes of death of the fetus in utero.

4. Give the causes, prognosis and treatment of albuminuria in pregnancy.

5. Give the objective signs of pregnancy in the order of their appearance and state their relative value.

6. Explain the significance of the various hemorrhages from the uterus that may occur during pregnancy. Give the non-medicinal treatment of uterine hemorrhage.

7. Define puerperal eclampsia and give its management, both prophylactic and curative.

8. Give the signs that indicate a breech presentation and outline the treatment.

9. Describe the symptoms and management of placenta previa.

10. What should be done to prevent infection of the puerperal breast? How should mastitis be treated?

11. Define atresia of the vagina and state its causes, symptoms and treatment.

12. What is trachelorraphy? Describe its technic.

13. Mention some of the causes of sterility in the female and state what can be done to correct them.

14. Differentiate menorrhagia and metrorrhagia and give the treatment of each condition.

15. Mention the causes and give the treatment of epithelioma of the cervix uteri.

PATHOLOGY AND DIAGNOSIS.

THURSDAY—1:15 TO 4:15 P. M.

1. Mention the structural changes that occur in tuberculous joints.

2. Mention the pyogenic cocci and describe the types of inflammation produced by them.

3. Describe the blood changes in pernicious anemia.

4. Give the histologic characteristics of (*a*) sarcoma, (*b*) fibroma, (*c*) adenoma.

5. What are the causes of stenosis of the larynx? Give the pathology of stenosis of the larynx.

6. Describe the formation of a metastatic abscess.

7. Give the pathology of lobar pneumonitis.

8. Distinguish between hematuria and hemoglobinuria. State the causes of each.

9. What abnormal products may be found in the urine as the result of (*a*) diabetes, (*b*) acute parenchymatous nephritis, (*c*) chronic interstitial nephritis?

10. Enumerate the diagnostic sounds in a diseased respiratory apparatus and describe *one* of the sounds mentioned.

11. Describe and locate the pain in (*a*) appendicitis, (*b*) renal calculus, (*c*) gallstones, (*d*) ovaritis, (*e*) cystitis.

12. State the practical diagnostic value of a laboratory examination of the feces. Illustrate.

13. Give the area of normal heart dullness. What conditions increase the area of heart dullness?

14. What causes contribute to obesity? What tissues are most frequently invaded in obesity?

15. Give the signs and symptoms of floating kidney.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

FRIDAY—9:15 A. M. TO 12:15 P. M.

"* * * in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."—Law of 1893, chapter 661, section 146.

Questions prepared by the board of examiners representing the Homeopathic Medical Society of the State of New York.

1. Give the treatment of shock following a surgical operation.

2. Give the liver symptoms of chelidonium majus.

3. Give the therapeutic sphere of cina.

4. Describe the treatment of a case of pneumonitis.

5. Give the therapeutic sphere of psorinum.

6. Give the symptoms and treatment of multiple neuritis.

7. Mention three remedies having a pathogenesis of green diarrhea and give the characteristics of each.

8. Give the symptoms and treatment of acute gastritis.
9. When should rhus toxicodendron be given in scarlet fever?
10. Describe the headache of iris versicolor.
11. Describe the skin symptoms of graphites.
12. Give *two* remedies for collapse during typhoid fever, with the indications for each.
13. Differentiate gelsemium and natrum muriaticum in intermittent fever.
14. Give the treatment of chilblain.
15. Give the indications for *three* remedies curative in nasal catarrh.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

FRIDAY—9:15 A. M. TO 12:15 P. M.

Questions prepared by the board of examiners representing the Medical Society of the State of New York.

1. State the pathologic conditions for the relief of which diuretics are administered.
2. Give the causes and treatment of palpitation of the heart.
3. State the dose of (*a*) tincture of benzoin, (*b*) benzoic acid. Give the therapeutic uses of benzoic acid.
4. Give the therapeutic uses of apomorphin hydrochlorate.
5. Give the causes and treatment of deficiency in excretion of urea.
6. Mention the alkaloids of pilocarpus. What alkaloid of pilocarpus is most frequently used in medicine?
7. Give the therapeutic uses of eserin and name its chief antagonist.
8. Give the etiology and treatment of rachitis.
9. State the dose for an adult of (*a*) acetanilide, (*b*) tartar emetic, (*c*) silver nitrate.
10. Give the source, the physiologic action and the therapeutic uses of oleum ricini.
11. Describe the treatment of neurasthenia.
12. What is the source of camphor? State the dose of spiritus camphoræ.
13. Give the therapeutic uses of chloral hydrate. How does a toxic dose of chloral hydrate affect the body temperature?
14. Give the source and the therapeutic uses of gum arabic.
15. Describe the treatment of cystitis.

THERAPEUTICS, PRACTICE AND MATERIA MEDICA.

FRIDAY—9:15 A. M. TO 12:15 P. M. ONLY.

Questions prepared by the board of examiners representing the Eclectic Medical Society of the State of New York.

1. How is salicylic acid produced? State its uses in medicine.
2. Give the treatment of a case of peritonitis.
3. What is mastitis? Give the treatment of mastitis.
4. Describe scarlatina and give its specific treatment.
5. Give the symptoms and treatment of acute nephritis.
6. Describe hydrothorax and give its treatment.
7. State how sodium bromid is obtained and give its uses.
8. Give the composition and the therapeutic uses of Seidlitz powders.
9. What is the alkaloid of mandrake? Give the specific indications for the use of this alkaloid.
10. What is echinacea angustifolia and when is it specifically indicated?
11. Describe rheumatic arthritis and give its treatment.
12. Describe chronic meningitis and give its treatment.
13. What preparations of phosphorus are used in medicine?
14. Describe the preparation and uses of tincture of iodin.
15. Describe the symptoms and treatment of angina pectoris.

In Memoriam of Dr. Ben. H. Brodnax—We Must Certainly Die.

We notice, with much regret, the death of our old-time friend, Dr. Ben H. Brodnax, of Brodnax, La. His articles to our columns were received by all readers and searchers after practical knowledge in an "I-thank-you" manner. His "Acid Iron Tonic" will stand the test of time, and we are happy to know that during his life we had the pleasure of giving our readers a half-tone portrait of the Doctor. He died on October 7th, 1905, of a complication of typhoid fever and bronchitis. He was seventy-four years of age, and thirty-five of them had been spent in the practice of medicine. We feel like quoting Cicero: "*Supremus ille dies non nostri extinctionem sed commutationem affert loci.*" (The last day does not bring extinction to us, but change of place.)

[Written for the MEDICAL BRIEF.]

Tonsillitis or Quinsy.

BY W. B. WOOD, M. D.,
Los Angeles, Cal.

Commence treatment with one-half grain of calomel and soda every hour until three grains have been taken, followed by comp. syr. senna. For fever, headache and pain give one teaspoonful of elix, acetanilide every two hours. To abort or prevent the tonsil from gathering, use the following:

℞ Tr. Phytolacca ..... ½ ounce.
Tr. Iodine ..... 1½ ounces.
M. Sig.: Apply to the tonsil with a brush or cotton tipped probe every two hours.

Corner Forty-Fifth and Central Avenue.

Book Notices.

GRAY'S ANATOMY. Descriptive and Surgical. New American from the Fifteenth English Edition. Revised, enlarged and rewritten by J. Chalmers Da Costa, M. D., Professor of Surgery in the Jefferson Medical College, in collaboration with a corps of specially selected assistants. In one very handsome imperial octavo volume of sixteen hundred pages, with eleven hundred and thirty-two illustrations, five hundred of which are new in this edition. Philadelphia and New York: Lea Brothers & Co., Publishers. Price, with illustrations in black: cloth, $5.50; leather, $6.50. With illustrations in black and many colors: cloth, $6.00; leather, $7.00.

Ever since an anatomy of medicine has been published, and we wish to refer to the past fifty years, Gray's Anatomy has stood the test, even though others have tried to enter the field. It has guided the teaching of anatomy in all English-speaking lands so exclusively that Gray on the subject has become the standard. Henry Gray died young, but he has left his masterpiece as a means of imparting a knowledge of anatomy that will be lasting. The subject of anatomy is perpetually advancing and any work on this line needs frequent revision, and in accordance, it has enlisted many of the ablest anatomists on both sides of the Atlantic, but no revision has been so thorough as this of Dr. Da Costa's. He is an anatomist, a surgeon, and a teacher, and he combines all the qualifications necessary to place this work abreast of the latest advances, keeping always in view the requirements of the student and practitioner. Every page has been revised and whole sections rewritten, notably those on the brain, spinal cord, nervous system, abdomen, and lymphatics. Of the magnificent series of over one thousand illustrations, no fewer than five hundred are new in this edition. They are so large that every detail is clear, and they bear the names of the parts engraved directly upon them (a feature peculiar to Gray), whereby the position, extent and relations are seen at a glance and impressed on the mind in a way otherwise impossible. Colors are used more freely than ever before to indicate the muscle-attachments, veins, arteries, nerves and lymphatics. The work is therefore an unrivaled dissector. The old and new nomenclature are both given, the new enclosed in brackets, thus serving all readers better than either system alone. The text has been most carefully arranged, so that its main and sub-headings and its catchwords in heavy type will give the student a systematic grasp of all the subjects in their proper anatomical dependence. In a word, Gray's Anatomy will remain in the future, as it has been in the past, the easiest book from which to teach, to learn, or to prepare for examinations for degrees or license to practice, and likewise the unrivaled reference book for the physician and surgeon.

PREVENTIVE MEDICINE. Including a Disquisition on Therapeutic Philosophy. By William Colby Cooper, M. D. Price, $1.00, postpaid. Address Dr. W. C. Cooper, Cleves, O.

This work on preventive therapeutics should be in every physician's library because it compels you to think. It reflects the vigor of an active mind, and commands your attention as something more than a collection of words. While some of the statements made may strike the reader as being too radical, for that very reason his own ideas will be crystallized and our store of knowledge increased. The second and third parts deserve especial attention, and the Editor urges every reader to send along his dollar to Dr. Cooper to-day and see for himself—you will thank us for the suggestion.

NEUROTIC DISORDERS OF CHILDHOOD. Including a Study of Auto and Intestinal Intoxications, Chronic Anemia, Fever, Eclampsia, Epilepsy, Migraine, Chorea, Hysteria, Asthma, etc. By B. K. Rachford, M. D., Professor of Diseases of Children, Medical College of Ohio, University of Cincinnati. Pediatrist to the Cincinnati Good Samaritan and Jewish Hospitals; Member of American Pediatric Society; Association of American Physicians, etc. New York: E. B. Treat & Company. Price, $2.75.

Owing to the fact that infants and children are predisposed to complicated nerve disorders at times, and such conditions seem to be very little understood by the general practitioner, and are only studied by pediatrists, therefore, this work appeals to the general practitioner in the sense of a go-between. It is a work that should be studied by the physician in general family practice.

HARE'S THERAPEUTICS. A Text-Book of Practical Therapeutics, with Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Hospital, etc. New (eleventh) edition, enlarged and thoroughly revised to accord with the eighth decennial revision of the U. S. Pharmacopeia, 1905. In one octavo volume of nine hundred and ten pages, with one hundred and thirteen engravings and four colored plates. Philadelphia and New York: Lea Brothers & Co. Price, cloth, $4.00; leather, $5.00; half morocco, $5.50.

Dr. Hare possesses the invaluable faculty of intuitively discriminating between the important and the unimportant, between the practical and the impractical. This is what every physician and student most desires to learn. It is not surprising that the writings of an author who tells his readers what they want to know, and who puts facts directly and simply, should be in great demand. The work is in its eleventh edition in fifteen years, each edition having been put to press several times to satisfy the demands. This satisactory condition has enabled the author to always keep abreast of the times and is an important matter in such a progressive subject. This edition is revised to meet the requirements of the new U. S. Pharmacopeia. It would be difficult to conceive of a work answering the needs of students and practitioners better than this, either in plan or execution.

HYGIENE AND PUBLIC HEALTH. By B. Arthur Whitelegge, C. B., M. D., B. Sc., London, F. R. C. P., D. P. H.; Late County Medical Officer of Health for the West Riding of Yorkshire; Chief Sanitary Officer of the West Riding of Yorkshire River Board; Medical Officer of Health for Nottingham, and Lecturer on Public Health, Charing Cross Hospital Medical School; and George Newman, M. D., D. P. H., F. R. S. E., Medical Officer of Health of the Metropolitan Borough of Finsbury; Late Demonstrator of Bacteriology and Infective Diseases in King's College, London; Author of "Bacteriology and Public Health." New edition, revised and enlarged, and in great part rewritten. Illustrated. Chicago: W. T. Keener & Co. Price, $1.75.

There is assuredly great progress being made along the lines of public health. The hygienic conditions, the technical details, and the special books on medicine, epidemiology, bacteriology, chemistry, physics, meteorology, geology, engineering, and statistics, all lend encouraging facts to the great advances being made in regard to the betterment of the health of our race as new conceptions are brought forward year by year. Much care has been taken to furnish a reliable working data for the guidance of those who wish to keep up with the progress along these lines. There is a vast amount of valuable information on these pages for the physician and student.

THE ERA KEY TO THE U. S. P. A Complete List of the Drugs and Preparations of the United States Pharmacopeia. Eighth decennial revision (1905). Vest-pocket size; 83 pages. New York: The Pharmaceutical Era, Publishers, 90 William Street. Price, 25 cents.

The publishers announce a new edition of the well-known "Era Key to the U. S. P.," whose object is to further the introduction and employment of the official drugs and preparations of our National standard, the United States Pharmacopeia, the eighth revision of which is now in force. The book comes in vest-pocket size and gives in a "nut-shell" all the essential information required by the physician who desires to prescribe pharmacopeia remedies—their official names, synonyms and constituent parts, with average doses in both metric and English systems. The idea of putting the essential information of the Pharmacopeia in so small a compass is claimed to be original with the publishers, under whose direction the little work was complied. The busy physician will find it both helpful and suggestive in his effort to prescribe official pharmaceutical preparations.

MALFORMATIONS OF THE GENITAL ORGANS OF WOMEN. By Ch. Debierre, Professor of Anatomy in the Medical Faculty of Lille. With eighty-five illustrations. Translated by J. Henry C. Simes, M. D., Emeritus Professor of Genito-Urinary and Venereal Diseases in the Philadelphia Polyclinic. Philadelphia: P. Blakiston's Son & Co. Price, $1.50.

"All physical science depends essentially upon two facts; the particular facts, which are revealed by observation; the general facts, which are discovered by reasoning. Together they increase and

mutually animate all studies. Considered separately, the first is only sterile material, the second only useless hypotheses. Science can not exist with one or the other—it must have both—any more than reasoning can exist without premises or without consequences." Monstrosities are considered as a result of the action of accidental causes, such as do not modify the whole organization, but which modify it during the development of the organization, in giving a different direction to the phenomena of evolution. These are the prevailing ideas of malformations of the genital organs of woman. The study of this subject should be considered by every general practitioner of medicine, as he often comes in contact with such conditions as a family practitioner.

PNEUMONIA AND PNEUMOCOCCUS INFECTIONS. By Robert B. Preble, A. B., M. D., Professor of Medicine, Northwestern University, Illustrated. Chicago: Cloyd J. Head & Co. Price, $1.00.

This work is written in the interests of pneumonia and its infections, and if you were asked the question as to the three greatest problems now engaging the attention of the medical profession you could not refrain from saying tuberculosis, pneumonia and carcinoma, as you all know these diseases have a predominance. Now, if such is the case, why not read up along these lines in authoritative considerations? Of course, tuberculosis is the most important, then why not take a hand in the discovery of some remedy that will alleviate, if not cure, this plague? Do some thinking and read the thoughts of others on the subject.

TEXT-BOOK OF ANATOMY. Edited by D. J. Cunningham, F. R. S., M. D. (Edinburgh and Dublin), D. Sc., LL. D. (Glasgow and St. Andrews), D. C. L. (Oxon); Professor of Anatomy, University of Edinburgh. Second and Thoroughly revised edition. Illustrated with nine hundred and thirty-six wood engravings from original drawings. Many printed in colors. New York: William Wood & Company, Publishers. Price, muslin, $6.00; leather, $7.00; half morocco, $8.00.

English physicians, as well as those of advanced ideas in America, have so favorably received this work that it was found necessary to issue a new edition. In carrying out this idea, it was thought best to carefully revise it and add many new illustrations. The work will sell on sight, owing to the elegant way in which the publishers have produced it. There has been some changes and additions made in this edition, especially on embryology, the joints, the muscles, the brain and spinal cord, the genito-urinary organs, the lymphatics, and applied anatomy. In the section upon the muscular system, a series of illustrations has been added in which the areas of muscle attachment are delineated upon the bones. There are noticeable many new features in this work that will stamp it as among the best textbooks on anatomy.

MANUAL OF CHEMISTRY. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A Text-Book Specially Adapted for Students of Medicine, Pharmacy and Dentistry. By W. Simon, Ph. D., M. D., Professor of Chemistry in the College of Physicians and Surgeons of Baltimore, and in the Baltimore College of Dental Surgery; Emeritus Professor in the Maryland College of Pharmacy, Department of the University of Maryland. Eighth edition. Thoroughly revised. With sixty-three illustrations, one colored spectra plate, and eight colored plates, representing sixty-four chemical reactions. Philadelphia and New York: Lea Brothers & Co. Price, $3.00.

Simon's Chemistry has just entered on its eighth edition. Any work that has been sought after to encourage the author and publisher to issue an eighth edition seems a matter of words to express why they have done so. A book must have merit to encourage so many editions, and it seems a self-evident fact that since the work of Simon on Chemistry has justified this, they need make no apology for this edition. It has been found that many changes have been made since the last edition was issued, and a new revision in accordance was necessary; therefore changes have been made in this edition to conform to the latest developments in chemistry, and this edition meets the requirements.

RICHARD WAGNER AS PHILOSOPHER. By Axel Emil Gibson, M. D., Los Angeles, Cal. Price, 25 cents.

"Music, like the rest of the fine arts, is the living presentation of religion, but religions spring not from the artist's brain; their only origin is in the minds of a spiritualized people."—*Wagner.*

OPERATIVE SURGERY. For Students and Practitioners. By John J. McGrath, M. D., Professor of Surgical Anatomy and Operative Surgery at the New York Post-Graduate Medical School; Surgeon to the Harlem, Post-Graduate, and Columbus Hospitals, New York. Second edition. Thoroughly revised. With two hundred and sixty-five illustrations, including many full-page plates in colors and half-tone. Six hundred and twenty-eight octavo pages. Philadelphia, 1914-16 Cherry street: F. A. Davis Company, publishers. Sold by subscription only. Price, extra cloth, $4.50; half morocco, $5.50.

A careful and thorough revision has been made in this edition and every department is made to conform to the latest in surgery. Many new illustrations have been added and much interesting and instructive matter has been added to the text. In the section upon the abdomen, the subjects of gastro-enterostomy and the surgical treatment of diseases of the stomach and intestines have been treated in minute detail; also the operative treatment of the pancreas, spleen, etc. The surgery of the prostate gland receives due consideration. The value of the book has been greatly enhanced by these additions and should prove a leader on this subject.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially-Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia. With the collaboration of William Osler, M. D., John H. Musser, M. D., James Stewart, M. D., John B. Murphy, M. D., A. MacPhedran, M. D., Thos. M. Rotch, M. D., John G. Clark, M. D., J. W. Ballantyne, M. D., James J. Walsh, M. D., John Harold, M. D., Edmund Landolt, M. D., Richard Krets, M. D., etc. Illustrated in colors and black and white. Philadelphia: J. B. Lippincott Co. Price, cloth, $2.00; half leather, $2.25.

On receipt of Vol. III, Fifteenth Series of the International Clinics, we wish to express our gratification on the improvements that are constantly made in this series. The authors and collaborators seem to vie with each other in aiming to improve this work. We can not but express our appreciation of the efforts to make this the greatest work on clinical medicine that the American press can produce.

MANUAL OF PATHOLOGY. Including Bacteriology, the Technic of Post-Mortems, and Methods of Pathologic Research. By W. M. Late Coplin, M. D., Professor of Pathology and Bacteriology, Jefferson Medical College, Philadelphia; Pathologist to Jefferson Medical College Hospital and to the Philadelphia (Blockley) Hospital; Director of the Clinical Laboratories of the Jefferson Medical College Hospital; Pathologist to the Friends' Asylum for the Insane, Frankford. Fourth edition. Rewritten and enlarged. With four hundred and ninety-five illustrations, many of which are original, and ten colored plates. Philadelphia: P. Blakiston's Son & Co. Price, $4.00.

Pathology is the name generally accepted for the science of disease, and this work is a text-book on the subject. The author has given, as the title explains, a concise knowledge of the subject. To study pathology to advantage it is necessary that the student be conversant with the facts and principles of physiology, and to make a practical application of this knowledge, that he shall verify those that are capable of being apprehended to our senses of personal observation. In this way he establishes in his own mind a standard of comparison and is enabled to determine variations in disease.

A TREATISE ON THE NERVOUS DISEASES OF CHILDREN. For Physicians and Students. By B. Sachs, M. D., Alienist and Neurologist to Bellevue Hospital; Neurologist to the Mt. Sinai Hospital; Consulting Physician to Manhattan State Hospital East and West; Formerly Professor of Mental and Nervous Diseases in the New York Polyclinic; Ex-President of the American Neurological Association. Second edition. Revised. New York: William Wood & Company. Price, $4.00.

This work has received such praise from the brainy portion of the profession that the author could not refrain from the task of issuing a second edition, in which every chapter has been revised, and much new matter has been introduced. Of course, to accommodate the new matter and not to enlarge the work, some matter had to be eliminated; thus the chapters on anatomy and physiology were sacri-

ficed, owing to the matter which could be readily found in the works of Dana, Gowers, Starr, and Oppenheim. This work is so complete that reference to other authors is not necessary, and Sachs, the author of this work, stands out as an authority, and makes this book an exclusive one.

LEA'S SERIES OF MEDICAL EPITOMES.—MAGEE & JOHNSON'S EPITOME OF SURGERY. A Manual for Students and Practitioners. By M. D'Arcy Magee, A. M., M. D., Demonstrator of Surgery and Lecturer on Minor Surgery; and Wallace Johnson, Ph. D., M. D., Demonstrator of Pathology and Bacteriology in Georgetown University Medical School, Washington, D. C. In one 12mo. volume of two hundred and ninety-five pages, with one hundred and twenty-nine engravings. Philadelphia and New York: Lea Brothers & Co. Price, cloth, $1.00.

The authors and editor have made an earnest endeavor to furnish an authoritative, clear, compact presentation of the essentials of modern surgery. While this little volume is by no means intended to take the place of a text-book, it will be found convenient for study many times when a large book is inaccessible, while for students' use in quizzing themselves or each other, in preparation for college or State board examinations, it will be of the utmost service. As with the other volumes of this excellent and very popular series, the questions are not interspersed with the text, but follow each chapter, thus permitting consecutive reading without interruption.

COAKLEY'S LARYNGOLOGY. A Manual of Diseases of the Nose and Throat. By Cornelius G. Coakley, A. M., M. D., Professor of Laryngology in the University and Bellevue Hospital Medical College; Laryngologist to Columbus Hospital, etc., New York. New (third) edition, revised and enlarged. In one 12mo. volume of five hundred and ninety-four pages, with one hundred and eighteen engravings and five colored plates. Philadelphia and New York: Lea Brothers & Co., Publishers. Price, cloth, $2.75.

The call for three editions in six years shows that this work is firmly planted in the esteem of the profession. It is a widely-prescribed text-book, it answers the need of general practitioners who do throat work, and it is a valuable reference manual for specialists. The author has made a very judicious selection of knowledge from the vast range of laryngological lore. He insists on the importance of thorough diagnosis and furnishes sufficient guidance in all its steps up to and including the final settlement of any doubts by means of microscopic and bacteriological tests. A departure of obvious value has been made in dealing with treatment. From among the multiplicity of medicinal and operative measures the author has chosen those which, in his experience have proven the best, and has given full details for the benefit of those who have not had the advantage of personal and clinical instruction. The revision of this new edition has been very thorough, bringing the book fully to date in all departments. For convenience a special chapter has been added on therapeutics, wherein will be found a classification of drugs according to their local actions, and a number of useful prescriptions, together with indications for their employment. References to these additional remedies have been indicated in the index under the *treatment* of each disease. The excellent series of illustrations has been revised and enriched on a parity with the improvements in the text.

RADIOTHERAPY, PHOTOTHERAPY AND HIGH FREQUENCY CURRENTS. The Medical and Surgical Applications of Radiology in Diagnosis and Treatment. By Charles Warrenne Allen, M. D., Professor of Dermatology in the New York Post-Graduate Medical School. Octavo, six hundred and eighteen pages, one hundred and thirty-one engravings and twenty-seven plates. Philadelphia and New York: Lea Brothers & Co. Price, cloth, $4.50.

Recent discoveries in radiant energy have developed a new and important system of therapy. In fact, such positive results have already been achieved in maladies which were hitherto considered intractable, as to warrant the recognition of Radiotherapy as a very efficient addition to the resources of the profession. Dr. Allen's work is peculiarly opportune. It is based upon practical experience, as well as upon a careful review of the great mass of literature on the subject coming from almost all quarters of the globe. Naturally, in a science so new, much faulty observation has been encountered, and in this volume no effort has been spared to

eliminate the errors and to present the subject correctly and abreast of its position to-day. Ample information is given upon the physical as well as the technical side, to equip the reader for the selection and management of appliances. The object of the work is always practical, and it has been the earnest endeavor of the author to enable his readers to secure for their patients prompt and permanent benefit. Accordingly, much attention is given to questions of diagnosis and treatment, and, inasmuch as such powerful forces as are treated of in this volume may do harm if improperly applied, cautionary directions are carefully given and exact instructions for the determination and measurement of dosage. When you have examined this volume you will find that the author has by no means lost sight of the demands of undergraduate students, and his long teaching experience has enabled him to produce a work which is admirably adapted to teaching purposes.

DISSECTING MANUAL. Based on Cunningham's Anatomy. By W. H. Rockwell, Jr., M. D., Formerly Assistant Demonstrator of Anatomy in the College of Physicians and Surgeons, Columbia University, New York. New York: William Wood & Company. Price, $2.00.

This work should appeal to the student in the dissecting room, from the fact that it divides this subject into five parts: Head and neck, thorax, upper extremity, abdomen and pelvis, and lower extremity. Each of these parts has been subdivided as much as possible, with regard to the avoidance of excessive repetitions, and described completely. Anything from the pen of Rockwell should have profound respect for particulars in the respective branch of medicine that has gained fame for his name.

LABORATORY MANUAL OF PHYSIOLOGY. By Frederick C. Busch, B. S., M. D., Professor of Physiology, Medical Department, University of Buffalo. Illustrated. New York: William Wood & Company. Price, $1.25.

This is a work of physiology for students, and while brief it is concise and sufficiently comprehensive for all the needs of the student or general practitioner. It is a work that should appeal to all who wish a work that is descriptive of the subject. It is especially valuable to students.

PHYSICIAN'S POCKET ACCOUNT BOOK. By J. J. Taylor, M. D. Philadelphia: Published by the *Medical Council*. Price, $1.00.

The important feature of this work is that you have a ready record in your pocket, that will be useful when a debtor attempts to take you by surprise with the question: "How much do I owe you?" You can produce the record on the moment, and often collect when you least expect to do so. It is fully worth the price, and one such opportunity will fully repay the outlay. Send for a copy. The dates are open and it is good till filled.

NEUROLOGY AND METAPHYSICS. By Charles McCormick, M. D., Founder and President of McCormick Neurological College, the First Non-Sectarian Medical College; Editor of *The Ophthalmologist*. Chicago: McCormick Neurological College, 2500 Prairie Ave.

The author says: "The two greatest humbugs of the ages have been and are religion and medicine. Neither is natural —both are artificial. True, they must have their originals in nature, but both have been so distorted by would-be authorities that nature could not recognize the imitations." We think this is a book well worth reading.

CLINICAL TREATISES ON THE PATHOLOGY AND THERAPY OF DISORDERS OF METABOLISM AND NUTRITION. By Professor Dr. Carl von Noorden, Physician-in-Chief to the City Hospital, Frankfort A/M. Authorized American Translation. Edited by Boardman Reed, M. D., Late Professor of Diseases of the Gastro-Intestinal Tract, Hygiene and Climatology, Department of Medicine, Temple College, and Physician to the Samaritan Hospital, Philadelphia; Physician to the American Oncologic Hospital, etc. Translated by Florence Buchanan, D. Sc., and I. Walker Hall, M. D. Part VII. Diabetes Mellitus. Its Pathology and Treatment. Lectures Delivered in the University and Bellevue Hospital Medical College, New York Herter Lectureship Foundation. New York: E. B. Treat & Co., Publishers. Price, $1.50.

PRESBYOPIC TEST CARD. This is an Eye Chart for Testing the Eyes for Reading Glasses only. It is so simple to use that one may test the eyes for reading without any knowledge of optics at all. It enables you to test the eyes for reading at any distance from eight to twenty-four inches, accurately. It does away with trying on glasses to a great extent until one is found to suit the patient. It does not seem to make any difference whether the eye is hypermetropic or myopic, as the test is good for all. Bloomington, Ill.: Dr. R. S. Piper. Price, $2.00.

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